

***LinkFixerPlus* QuickStart Guide for MicroStation®**

LinkFixerPlusTM

*Automatically fix links when you move or rename
files!*

Version 1.6

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Chapter 1 — Installing *LinkFixerPlus*

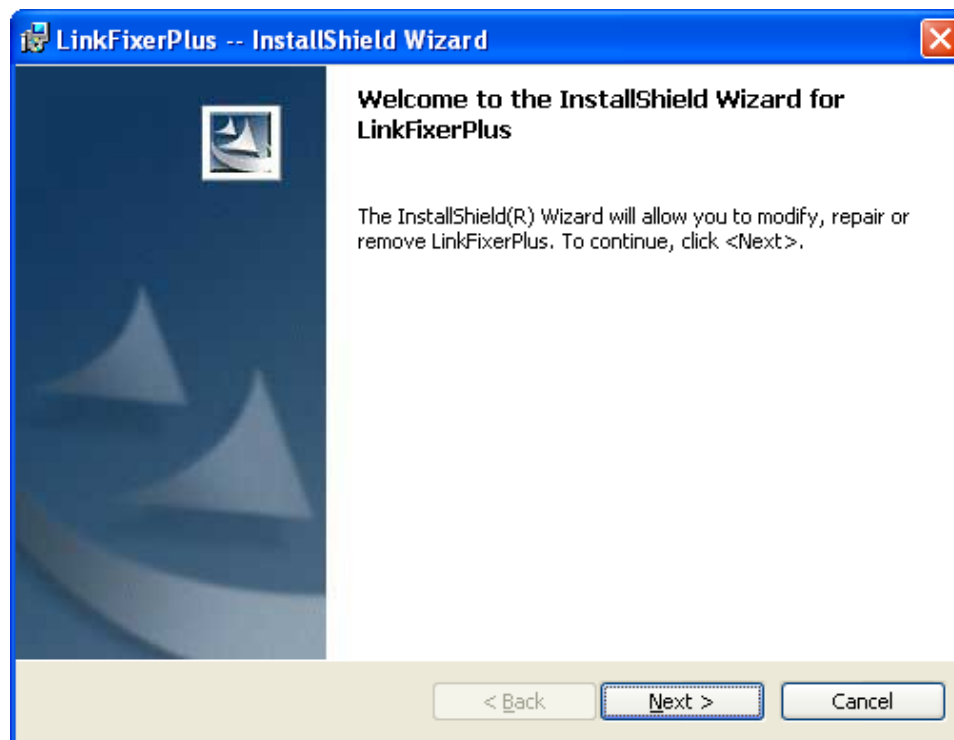
If you received *LinkFixerPlus* via Electronic Software Delivery

To install *LinkFixerPlus* onto your computer, simply navigate using Windows Explorer to the downloaded “lfp-setup.exe” file and double-click on it to start the installation wizard.

If you received *LinkFixerPlus* on a CD

To install *LinkFixerPlus* onto your computer, simply insert the *LinkFixerPlus* CD into your computer’s CD-ROM drive. The installation wizard will automatically start.

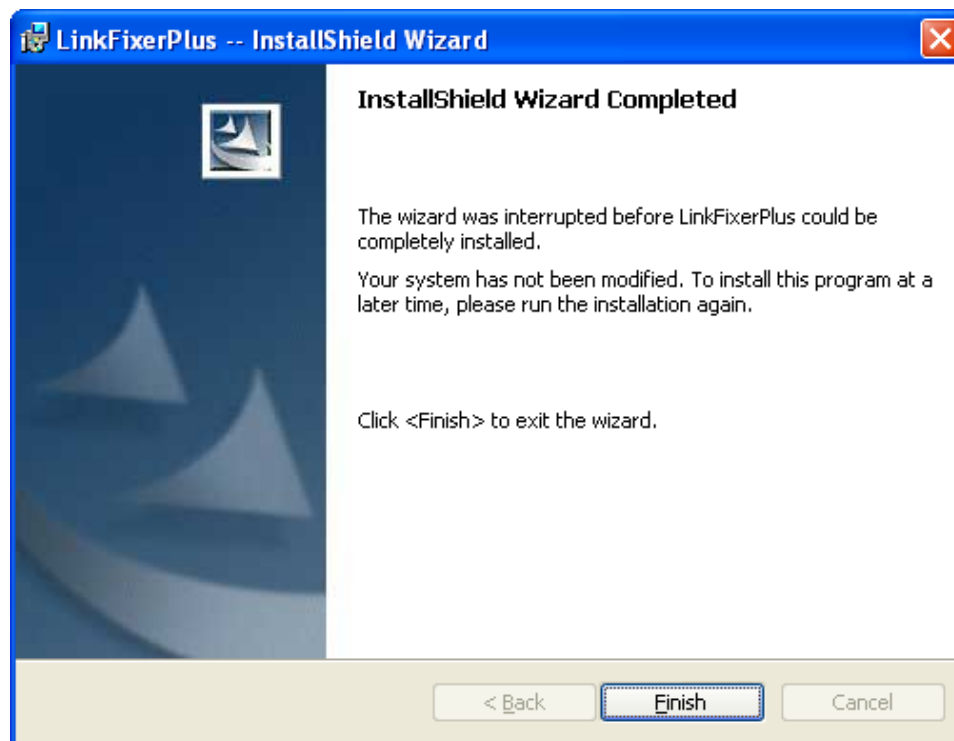
You should then see the following wizard screen:



Note: Be sure to uninstall any previous version of *LinkFixerPlus* prior to installing a new version of the program.

Note: The default installation drive and folder for *LinkFixerPlus* is “C:\Program Files\LinkTek\LinkFixerPlus\”.

Follow the instructions given on the installation wizard screens. When the installation is complete, you will be presented with the following screen:



Click the <Finish> button to complete the installation and exit InstallShield.

Chapter 2 — Setup Sample Files

Location of sample files

The QuickStart lessons that are contained in this document are meant to quickly show you how to effectively use each of the main features in *LinkFixerPlus*. Sample files have been included for you to use with these lessons.

By default, *LinkFixerPlus* is installed to the “C:\Program Files\LinkTek\LinkFixerPlus” folder. The sample files are stored in the “MicroStation Sample Files” subfolder under the main *LinkFixerPlus* installation folder.

Preparing the sample files

If you did not install *LinkFixerPlus* to the default location specified above, then please go to the “Preparing the QuickStart Sample Files” appendix at the end of this QuickStart Guide. This appendix will show you how to use *LinkFixerPlus* to update the links contained in the sample files so that they use the alternate installation location you selected for *LinkFixerPlus*. This will ensure that the sample files are properly setup to be used with the QuickStart lessons. After completing the steps to prepare the sample files for the alternate installation location, skip to the next chapter “Starting *LinkFixerPlus*”.

Refreshing sample files

If you installed *LinkFixerPlus* to its default installation drive and folder “C:\Program Files\LinkTek\LinkFixerPlus\”, and you have previously gone through one or more of the QuickStart lessons, you may wish to refresh the sample files before going through the lessons another time. Refreshing the sample files will ensure they are properly setup for use with the QuickStart lessons.

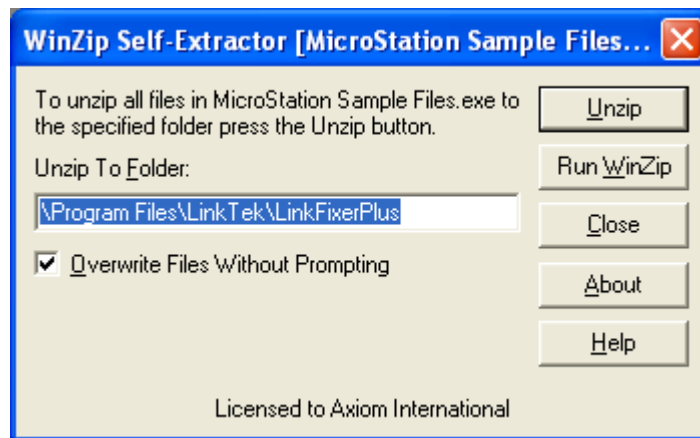
Tip: Do not refresh the sample files between each lesson and the screen shots will match what you have on your screen!

To do this, use Windows Explorer to navigate to your *LinkFixerPlus* installation folder and locate the “MicroStation Sample Files” subfolder. Select the “MicroStation Sample Files” folder and press the <Delete> key. This will remove the folder and any existing modified copies of the sample files.

Next, locate the self-extracting zip file “MicroStation Sample Files.exe” within your *LinkFixerPlus* installation folder. This zip file contains the original sample files used in the QuickStart lessons. Double-click on this “MicroStation Sample Files.exe” file. The following screen will display:

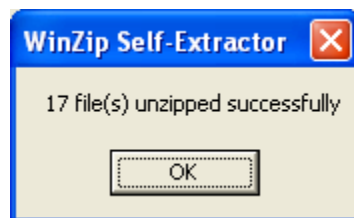


Click <OK> and you will see the main screen of the self-extractor:



Click the <Unzip> button. The self-extractor program will create a new “MicroStation Sample Files” folder under the default *LinkFixerPlus* installation folder and will create new copies of the MicroStation sample files in that location.

After the sample files have been refreshed (unzipped), you will see a dialog box indicating that the sample files have been unzipped successfully:



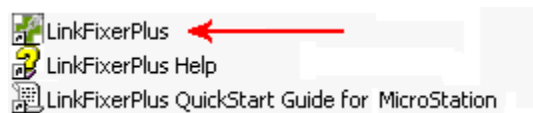
Click the <OK> button. This will take you back to the main “WinZip Self Extractor” dialog box. Finally, click the <Close> button and go to the next chapter of this QuickStart Guide.

Note: *LinkFixerPlus* for MicroStation is capable of processing MicroStation V8 file formats.

Chapter 3 — Starting *LinkFixerPlus*

During the installation of *LinkFixerPlus*, a folder was created on your desktop called “LinkFixerPlus”. Open it and you will find a number of shortcuts icons. Some of these icons are shortcuts for the “QuickStart Guides” for the different file types *LinkFixerPlus* can process. (The shortcuts shown may vary depending on which file types your copy of *LinkFixerPlus* is licensed to process.) Another icon is a shortcut for the *LinkFixerPlus* help file and finally, the last icon is a shortcut for *LinkFixerPlus* itself.

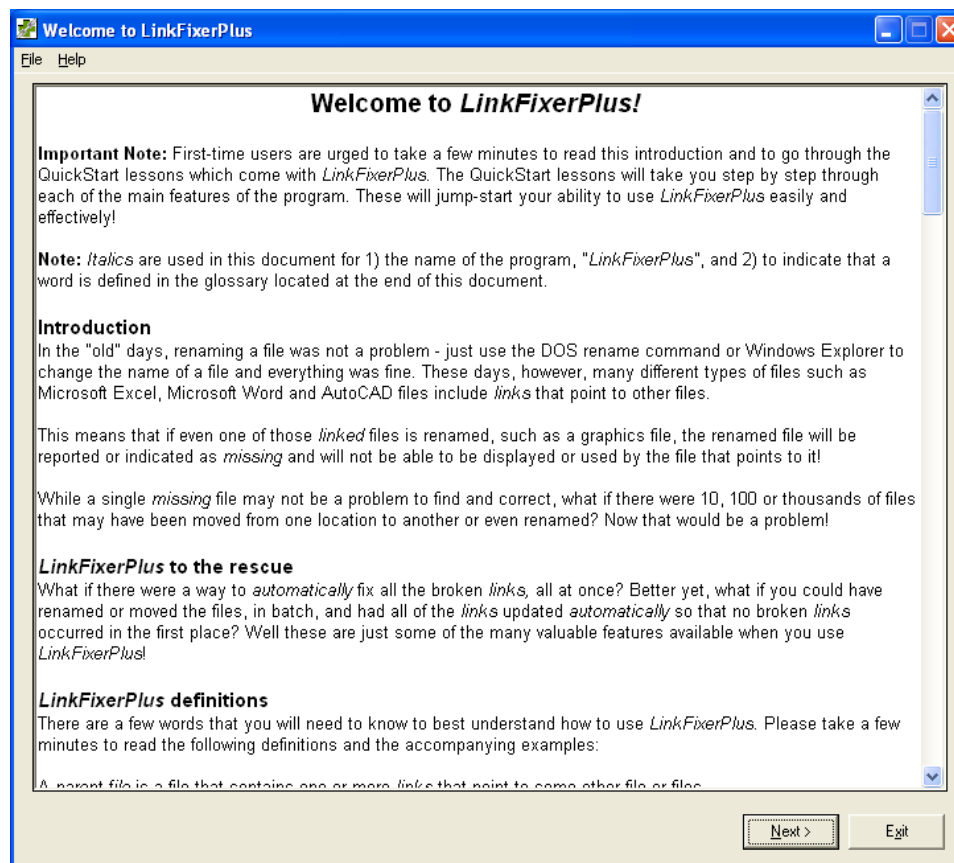
To start *LinkFixerPlus*, double-click on the *LinkFixerPlus* shortcut icon, as shown in the following screen shot:



Note: The list of shortcuts shown may vary depending upon which version of *LinkFixerPlus* is installed.

When you first load *LinkFixerPlus*, you will see an introductory wizard screen which contains a brief overview describing *LinkFixerPlus*, including definitions of some of the terminology used within the program and the documentation. Be sure to take a few minutes and read through this introduction to acquaint yourself with the program.

Tip: You can direct *LinkFixerPlus* to bypass this welcome screen by selecting the “File | Options...” menu option and unchecking the “Show welcome screen” checkbox. This will turn off the display of this welcome screen..



When you finish reading the welcome screen, click the <Next> button.

Chapter 4 — Using *LinkFixerPlus*

Lesson #1 — Create a report



In this first of four lessons, you are going to create a report of the references (links) contained in the MicroStation sample files. This report will provide a detailed description of the parent files and the references contained within them.

Trialware Limitations:

If you are using the Trialware version of *LinkFixerPlus*, please note the following limitations while going through the QuickStart lessons:

Reporting — Fully functional, no limitations.

Inoculate/Cure — Processes only up to 50% of the selected links.

Rename/Move — Allows a preview of the rename results only.

Link Limitation — Only a maximum of 1,000 links will be processed.

1. To start, select the “Produce a report of parent files, links and child files.” option.



- Produce a report of parent files, links and child files.

2. Click <Next> and select the first option “Regular Report showing parent files and their links pointing to child files.” for this lesson.



- Regular Report showing parent files and their links pointing to child files.

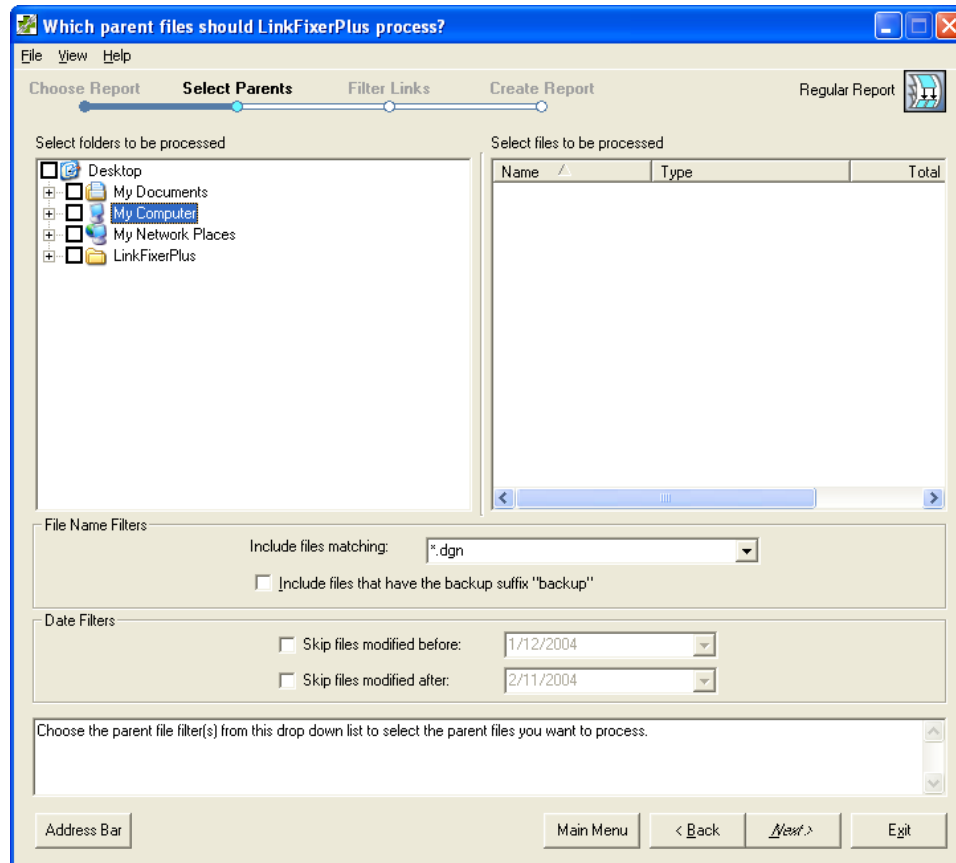


- Cross-Reference Report showing child files and the parent files that point to them.

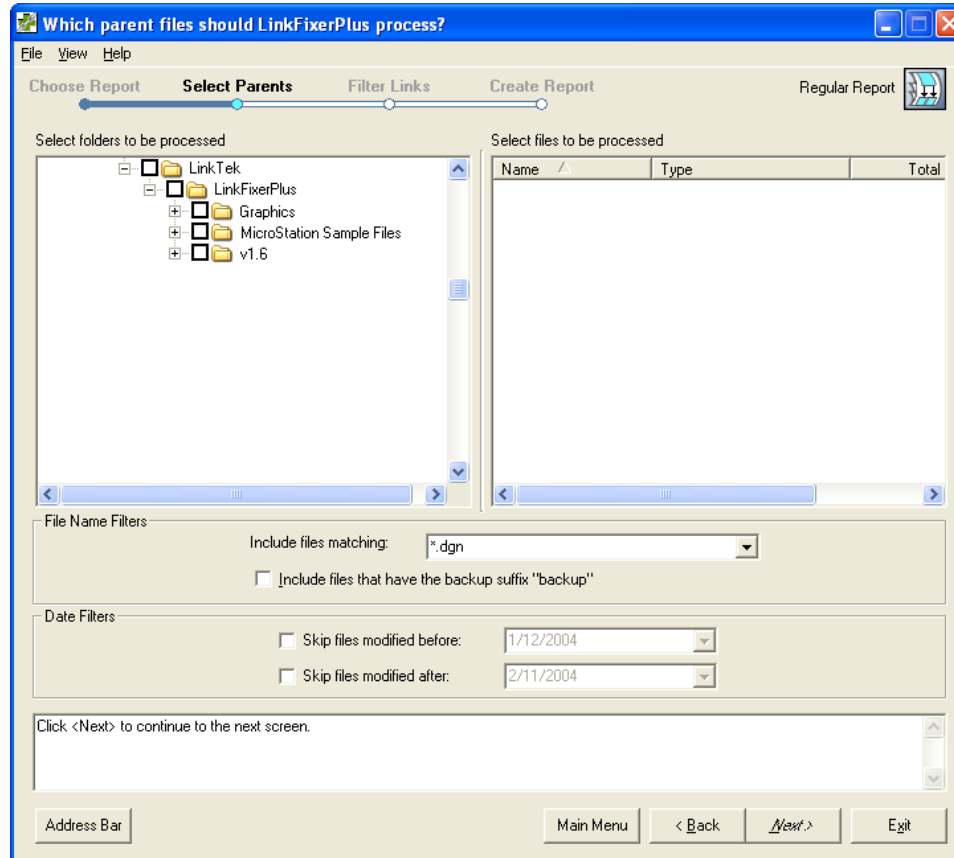


- Broken Links Report showing links broken between parent files and child files.

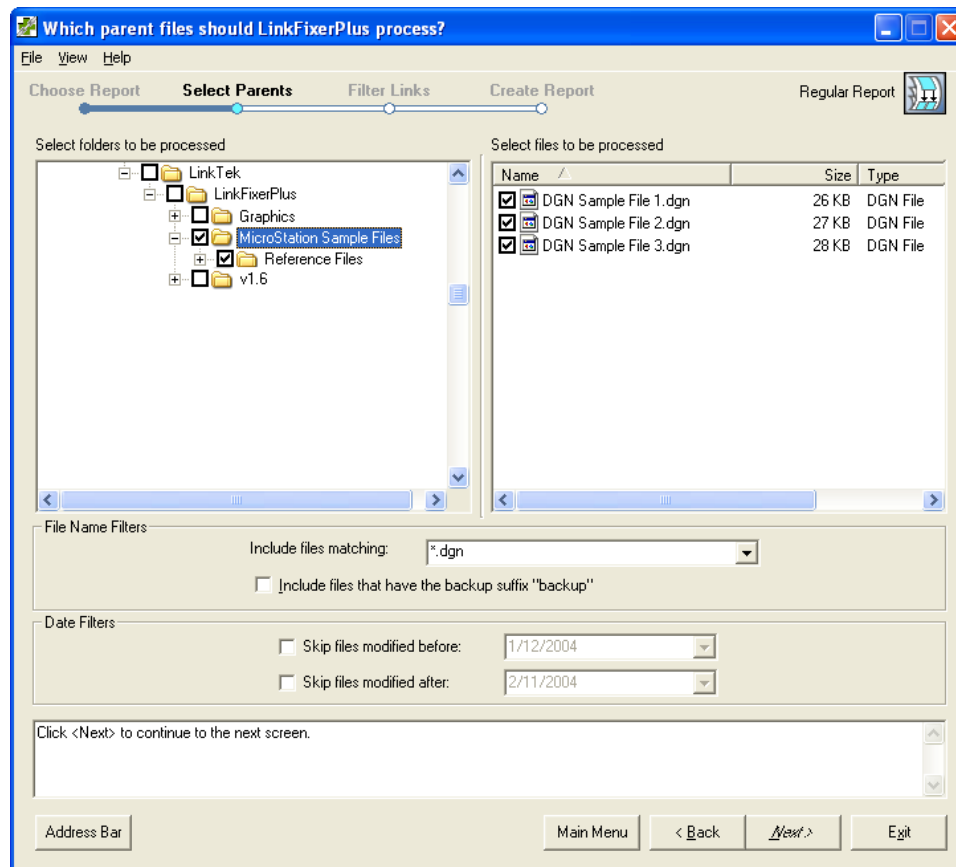
3. Then click the <Next> button. The “Which parent files should LinkFixerPlus process?” wizard screen will display (shown below).
4. In the “File Name Filters:” area of this screen, you will see the “Include files matching:” drop-down menu. The default “File Name Filters:” for handling MicroStation files is “*.dgn”. We will be using this default filter for this QuickStart lesson. If the filter “*.dgn” is not displayed in this field, you may manually edit this filter as needed.



5. You will be working with the files contained in the “MicroStation Sample Files” folder. This subfolder is located under your *LinkFixerPlus* installation folder, which, by default, is “C:\Program Files\LinkTek\LinkFixerPlus”. Navigate to the drive and the *LinkFixerPlus* installation folder where you installed *LinkFixerPlus*. Then locate the “MicroStation Sample Files” subfolder, as shown in the following screen shot.



- Now, for this lesson, we are going to process all of the parent files in the “MicroStation Sample Files” folder. To choose all of these files, click on the checkbox next to the “MicroStation Sample Files” folder.

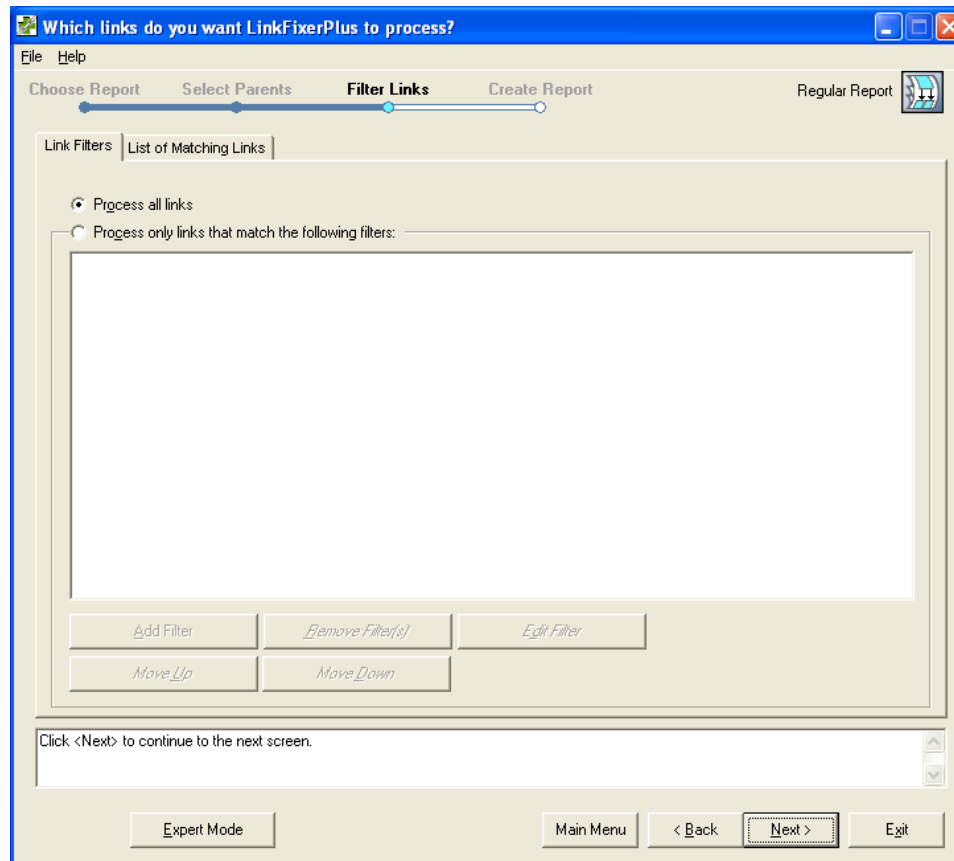


- In the “File Name Filters:” area of this screen, you will see the “Include files matching:” drop-down menu. The default “File Name Filters:” for handling MicroStation files is “*.dgn”. If the filter “*.dgn” is not displayed in this field, you may manually edit this filter as needed.

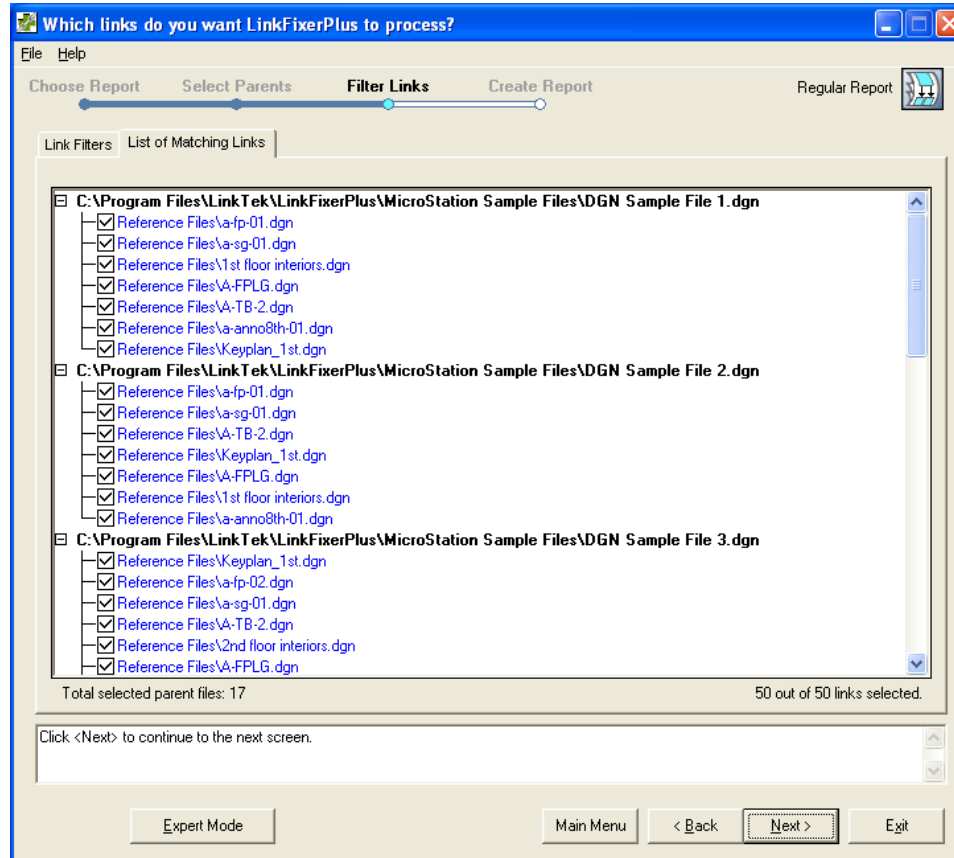
Note: The default File Name Filter is initially determined by *LinkFixerPlus* depending on which types of files *LinkFixerPlus* has been licensed to process.

Note: *LinkFixerPlus* processes licensed files based upon their actual file type and not based upon the extension of their filenames. So, if the extension of an MicroStation file, “.dgn” for instance, was changed, you could still process the file. You would select the wildcard File Name Filter “*.*” from the drop-down menu, or type it into the “Include files matching:” field. This would ensure that all MicroStation files, in the folders you had selected, are processed regardless of their actual filename extensions.

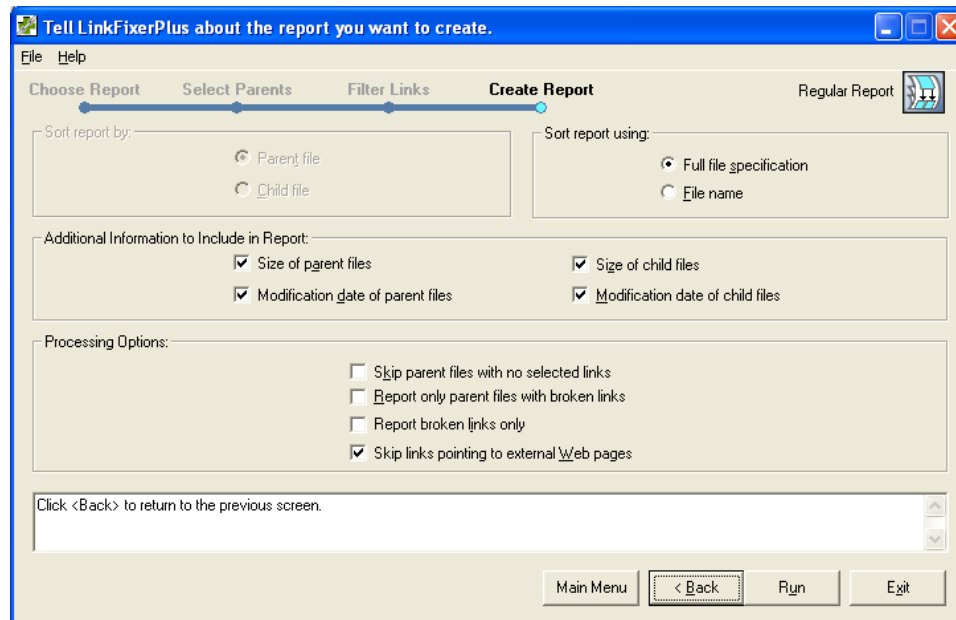
- At this point, we have finished selecting the parent files we want to work with. Click the <Next> button to move to the next screen. After some processing, the “Which links do you want LinkFixerPlus to process?” screen will display. On that screen, make sure that the “Process all links” option is selected for this lesson.



- Click <Next> to move to the “List of Matching Links” tab. After some processing, this screen lists each parent file, along with the references (links) contained within each file, shown in a tree structure. Notice the checkboxes next to each reference are checked and the references are also highlighted in blue. This indicates that these references have been selected for processing.



- Click <Next> and, after some processing, the “Tell LinkFixerPlus about the report you want to create” screen will display.



- Now, find the “Skip links pointing to external Web pages” checkbox in the “Processing Options” and click the checkbox next to this option. In this lesson, we will not be reporting on any external links. This option tells *LinkFixerPlus* to skip such links if they are encountered.
- To begin generating the report, click the <Run> button.

13. Once processing is complete, the “LinkFixerPlus Process Summary” dialog box will display. Click on the <View Report...> button. This will startup your default Web browser and display a detailed report showing the selected parent files and all of the links contained within them. The following is a partial screen shot of this report:

Regular Report

| |
|--|
| Parent file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\DGN Sample File 1.dgn -- 26,624 bytes -- 6 December 2004, 5:20 PM |
| Link: "Reference Files\1st floor interiors.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\1st floor interiors.dgn (1 link) -- 166,400 bytes -- 6 December 2004, 5:14 PM |
| Link: "Reference Files\la-anno8th-01.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\la-anno8th-01.dgn (1 link) -- 76,800 bytes -- 6 December 2004, 5:15 PM |
| Link: "Reference Files\la-fp-01.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\la-fp-01.dgn (1 link) -- 185,344 bytes -- 6 December 2004, 5:16 PM |
| Link: "Reference Files\A-FPLG.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\A-FPLG.dgn (1 link) -- 12,800 bytes -- 6 December 2004, 5:17 PM |
| Link: "Reference Files\la-sg-01.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\la-sg-01.dgn (1 link) -- 78,336 bytes -- 6 December 2004, 5:19 PM |
| Link: "Reference Files\A-TB-2.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\A-TB-2.dgn (1 link) -- 32,768 bytes -- 6 December 2004, 5:09 PM |
| Link: "Reference Files\Keyplan_1st.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\Keyplan_1st.dgn (1 link) -- 57,856 bytes -- 6 December 2004, 5:22 PM |
| Parent file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\DGN Sample File 2.dgn -- 27,648 bytes -- 6 December 2004, 5:21 PM |
| Link: "Reference Files\1st floor interiors.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\1st floor interiors.dgn (1 link) -- 166,400 bytes -- 6 December 2004, 5:14 PM |
| Link: "Reference Files\la-anno8th-01.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\la-anno8th-01.dgn (1 link) -- 76,800 bytes -- 6 December 2004, 5:15 PM |
| Link: "Reference Files\la-fp-01.dgn" ==> Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\la-fp-01.dgn (1 link) -- 185,344 bytes -- 6 December 2004, 5:16 PM |

14. Scroll through the report noting how each parent file is displayed followed by a detailed list of the links contained within each of the files. Additionally, you will see how *LinkFixerPlus* also shows each child file pointed to by each link, along with details concerning the child files themselves.
15. After reviewing this report, close the Web browser and click on the <Run another LinkFixerPlus process> button on the summary screen to return to the “What do you want LinkFixerPlus to do?” main menu.
16. Congratulations, you have completed the first QuickStart lesson! Now, go to “Lesson #2 — Inoculate files”.

Lesson #2 — Inoculate files



In this lesson, we will safeguard the sample files so that broken references, caused by manually renaming and moving the sample files, can be fixed automatically!

Trialware Note: The “Inoculate” command only processes up to 50% of selected links.

1. On the *LinkFixerPlus* menu, click “File” and then click “Options...” on the drop-down menu. This will cause the “Options” screen to display.
2. Click on the “Backup” tab. Make sure that the two checkboxes for creating backups are turned on (checked). This ensures that backup copies of parent files and child files are created before they are modified during any processing.

The screenshot shows the 'Options' dialog box with the 'Backup' tab selected. The 'Backup options' section contains the following elements:

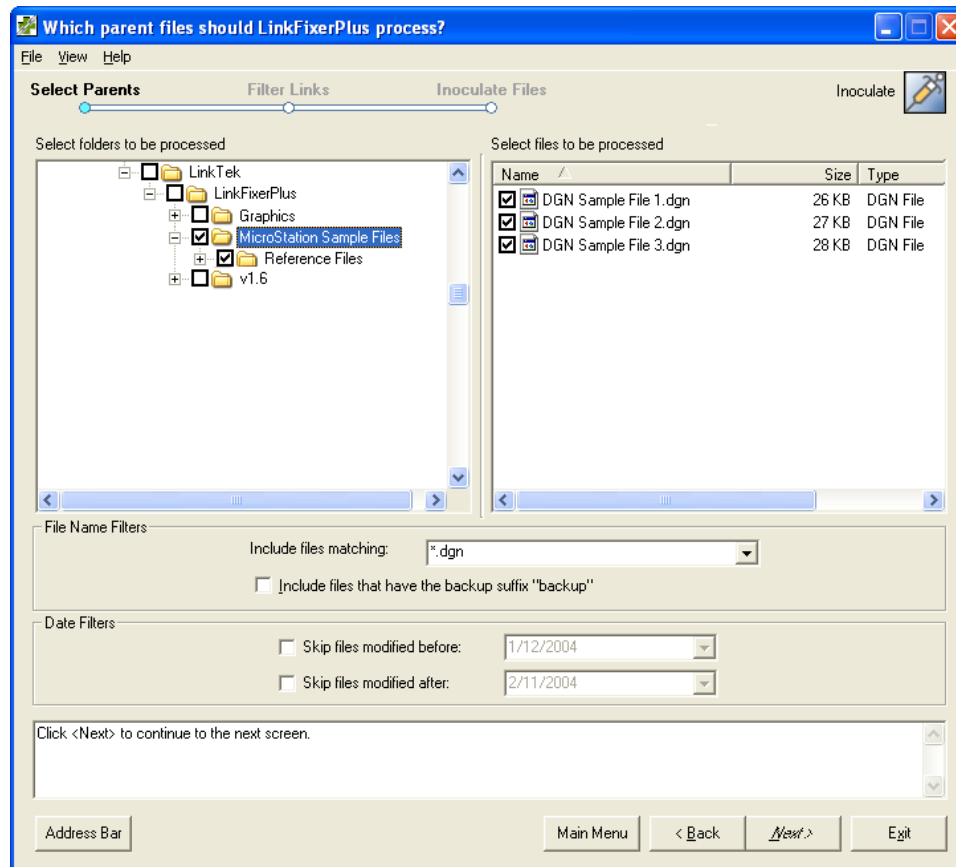
- Two checked checkboxes: "Create backups of changed parent files" and "Create backups of changed child files".
- A text box for "Prefix backup file names with:" which is currently empty.
- A text box for "Suffix backup file names with:" containing the text "backup".
- A text box for "Save backup files to folder:" which is currently empty.
- "Clear" and "Browse" buttons.
- A message box at the bottom: "Click the <OK> button to save any changes you may have made to the different options."
- "OK" and "Cancel" buttons at the bottom right.

3. Click the <OK> button to close this screen.
4. On the *LinkFixerPlus* main menu, select the “Inoculate files so links can be automatically cured.” option and then click the <Next> button.

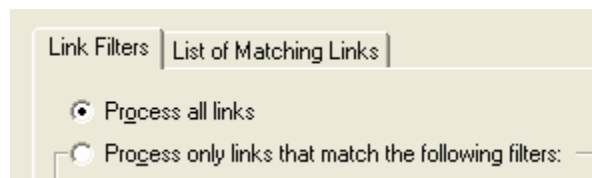


Inoculate files so links can be automatically cured.

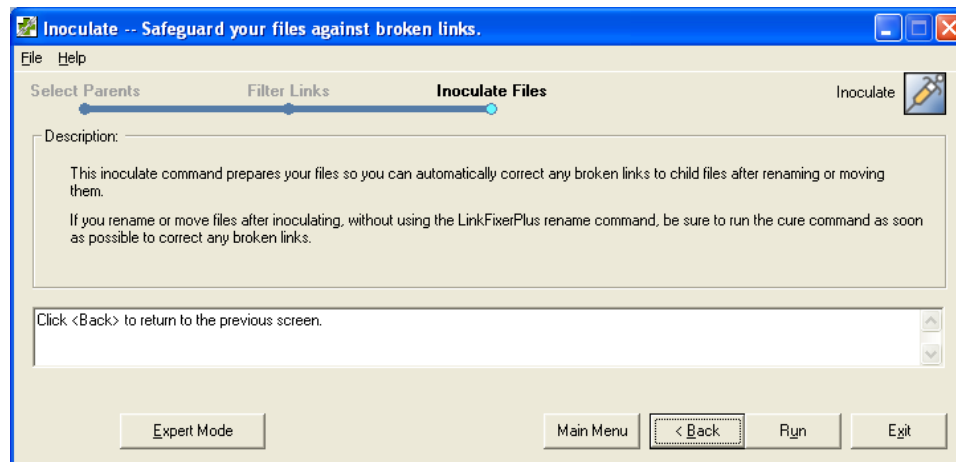
5. Ensure that the “MicroStation Sample Files” folder is still selected, as is shown in the following screen shot:



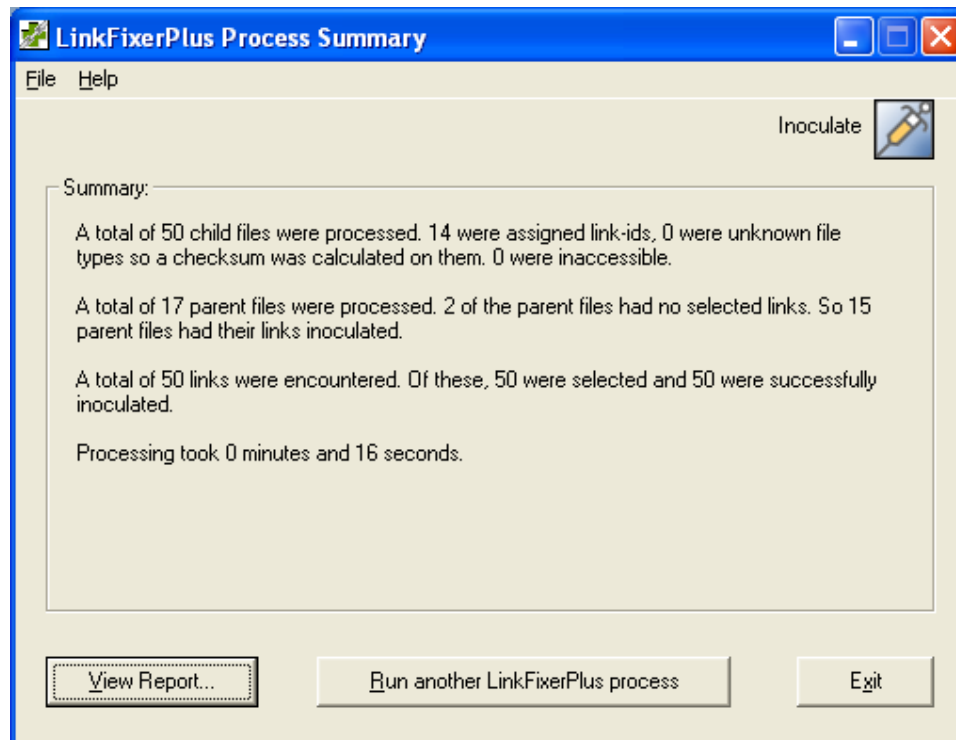
6. Click the <Next> button and after some processing, the “Which links do you want LinkFixerPlus to process?” screen displays. For this lesson, we want to process all of the links, so verify that the “Process all links” option is selected on the “Link Filters” tab.



- Click the <Next> button. After a bit of processing, the “List of Matching Links” screen will display. Click the <Next> button again. This will then take you to the “Inoculate – Prepare files so they can be renamed and/or moved” screen.



- To begin the inoculation process, click the <Run> button.
- When the inoculate process is complete, the “LinkFixerPlus Process Summary” screen will display:



Trialware Note: Your results may vary from what you see on this screen, due to the fact that the trial version only processes up to 50% of the links that were selected.

10. Click on the <View Report...> button to see the “Inoculate Process Report”. A portion of this report is shown as follows:

Inoculated child files pointed to by links in parent files:

| |
|--|
| Parent file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\DGN Sample File 1.dgn |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\la-fp-01.dgn It is a licensed file type and was assigned the link-id of 2921-964C-585A-D60B. |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\la-sq-01.dgn It is a licensed file type and was assigned the link-id of DDC8-D862-011A-DD9C. |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\1st floor interiors.dgn It is a licensed file type and was assigned the link-id of B90B-0A5D-E091-C57E. |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\A-FPLG.dgn It is a licensed file type and was assigned the link-id of C357-6218-E26E-FFDF. |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\A-TB-2.dgn It is a licensed file type and was assigned the link-id of F540-ACB2-2EC5-D070. |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\la-anno8th-01.dgn It is a licensed file type and was assigned the link-id of BEF9-C80C-9A8D-D0E4. |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Reference Files\Keyplan_1st.dgn It is a licensed file type and was assigned the link-id of 7FDC-274E-3322-6E74. |

11. Notice how each parent file is shown followed by a list of all of the child files that are pointed to by each reference in the parent file. Additionally, note how *LinkFixerPlus* has automatically assigned either a unique link-id or checksum-id to each child file. These id's will be used in a later lesson where broken references within these parent files are automatically fixed using *LinkFixerPlus*' cure process.

Note: The phrase “unlicensed filetype” shown in the above report means that the associated child file is a type of file that *LinkFixerPlus* was not licensed to process, and thus the child file could not be “inoculated” with a *link-id* value. Alternatively, *LinkFixerPlus* calculated a unique *checksum-id* based upon the contents of the child file. Then, that checksum-id was used to inoculate the associated link in the parent file. This methodology allows the Inoculate process to be used to safeguard all of the references in parent files regardless of the types of child files they point to!

12. After reviewing the report, close the browser and click on the <Run another LinkFixerPlus process> button to return to the “What do you want LinkFixerPlus to do?” screen.
13. Well done! You have now completed the second QuickStart lesson. Please go to “Lesson #3 — Cure broken links”.

Lesson #3 — Cure broken links

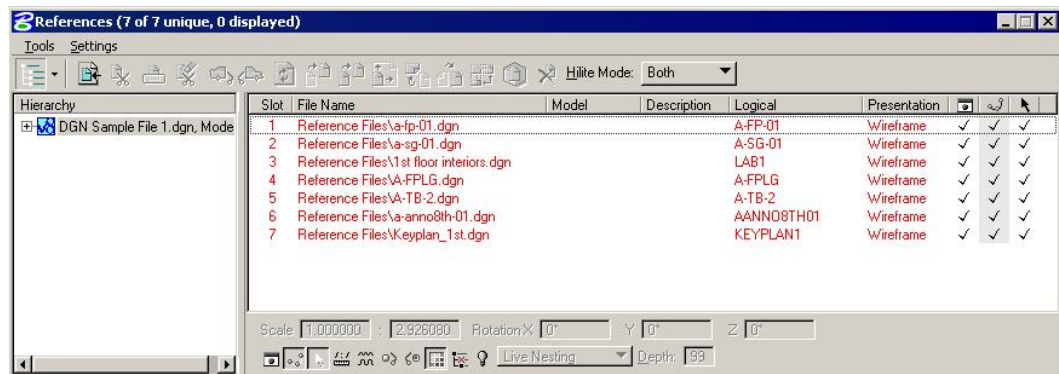


In this lesson, we will demonstrate *LinkFixerPlus*' unique ability to *automatically* fix broken links contained in parent files caused by files being manually moved or renamed.

Using the “Cure” command, *LinkFixerPlus* actually updates links contained in parent files so that they point to the correct child files, even if the child files were moved or renamed!

We are going to intentionally break references pointing to Reference files by manually renaming a folder using Windows Explorer. Then we are going to use the cure process to *automatically* fix the broken link caused by the folder being renamed!

1. To get started, open Windows Explorer and navigate to the “MicroStation Sample Files” folder. Then, select the “Reference Files” folder. Next, right-click on it and select “Rename” from the menu. Rename the folder to “Renamed Reference Files”.
2. At this point, we have manually renamed the folder containing the Reference files. This will cause the references in the parent drawing files to become broken.
3. To verify that the links are broken, open the “DGN Sample File 1.dgn” file.
4. Then select the “File | Reference” menu option. Notice the reference files have all turned to red indicating that the links are now broken. (See the following screen shot.)

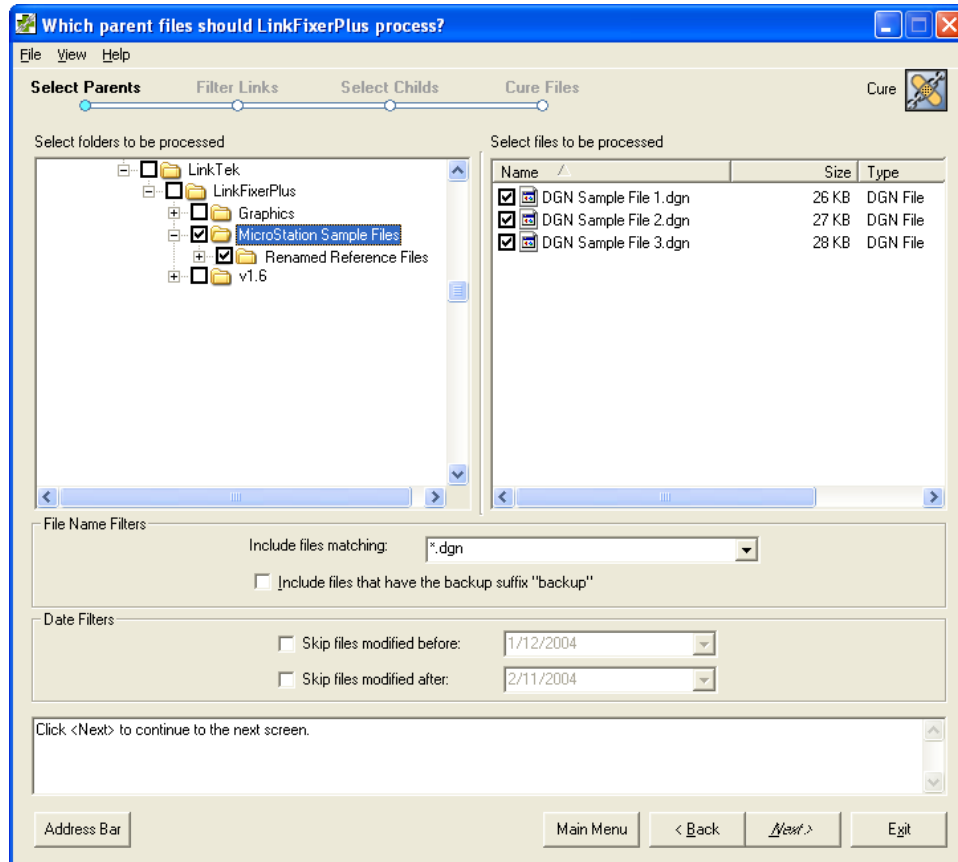


5. Now close MicroStation without saving any changes and go back to *LinkFixerPlus*.
6. Next, we will use *LinkFixerPlus* to *automatically* cure the broken links for us! To do this, select the “Cure broken links AUTOMATICALLY for files that were inoculated” option on the “What do you want LinkFixerPlus to do?” wizard screen. Then, click the <Next> button.



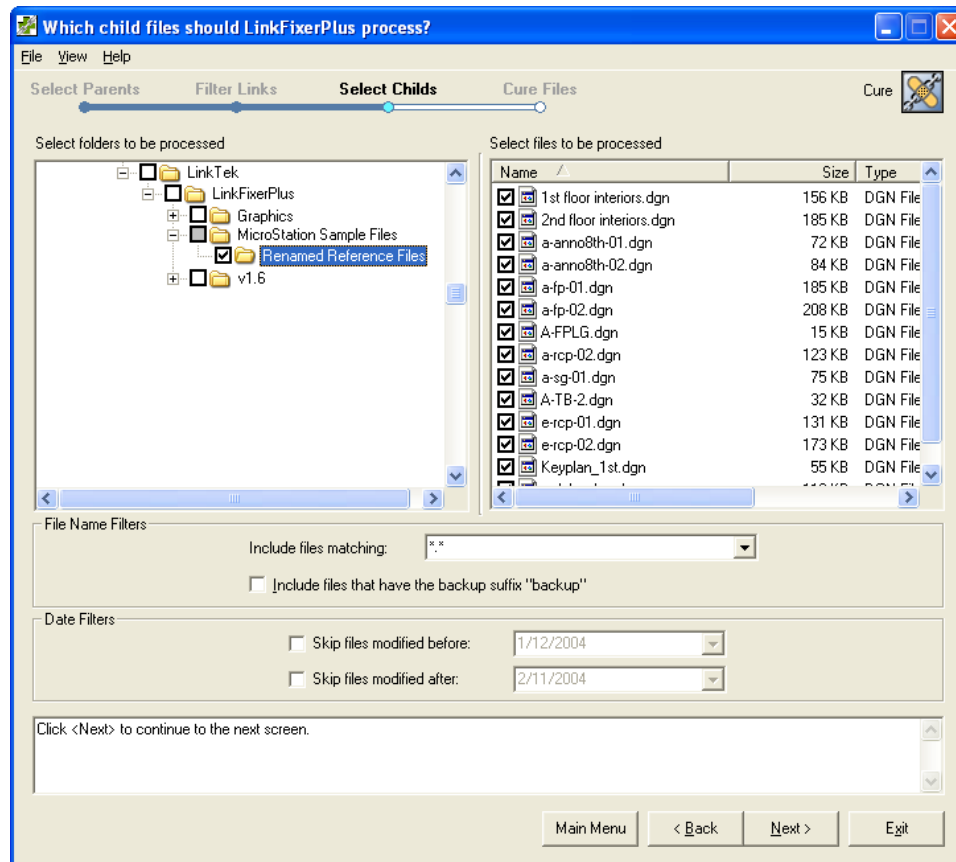
Cure broken links AUTOMATICALLY for files that were inoculated.

7. When the “Which parent files should LinkFixerPlus process?” screen displays, choose “View | Refresh & Clear Checkboxes” from the “File” menu so our manually renamed “Renamed Reference Files” folder is displayed. Click <OK> when asked if you want to refresh and clear the checkbox selections.
8. Then, navigate to the “MicroStation Sample Files” folder and make sure it is selected for the cure processing.



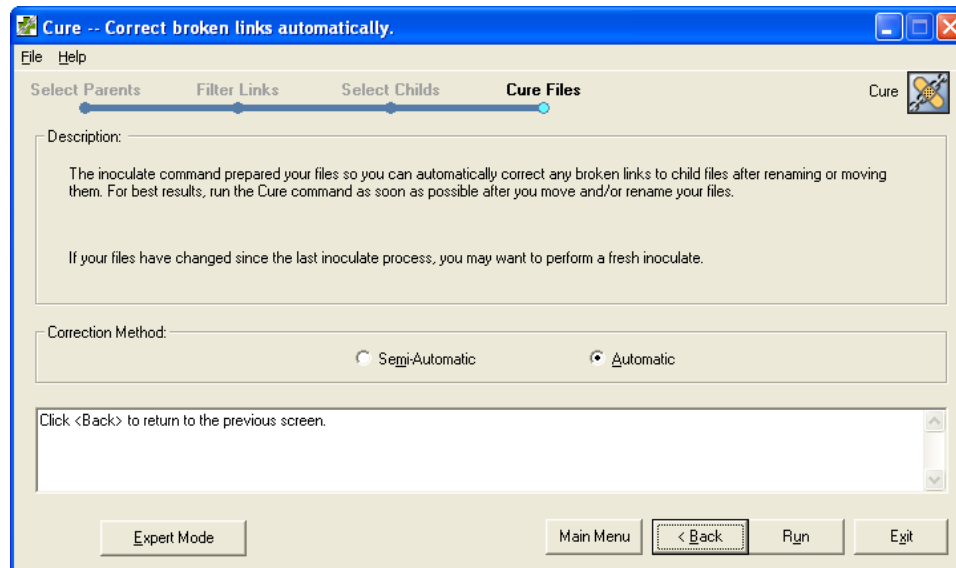
9. Next, verify that the “Include files matching:” field reads “*.dgn”. We will use this filter for this lesson. If this filter is not displayed in the field, you can simply edit it as needed.
10. Then, click the <Next> button and after some processing, the “Which links do you want LinkFixerPlus to process?” screen will display.
11. Make sure that the “Process all links” radio button is selected and continue clicking the <Next> button, moving from the “Link Filters” tab to the “List of Matching Links” tab.
12. Once the list of reference links displays, click the <Next> button again. The “Which child files should LinkFixerPlus process?” wizard screen will display.
13. In the folders pane of the “Which child files should LinkFixerPlus process?” screen, navigate to and check the box next to the “Renamed Reference Files” folder. It is located in the MicroStation Sample files folder as follows:
“C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files”.

14. The selection of this folder will cause all of the files in that folder to be considered as “candidate” child files for the cure process to use when fixing broken links.



Tip: When using *LinkFixerPlus* to cure the links in your own parent files, it is possible that you may not know where the needed child files are located. In a case like this, you may have to select a higher level folder, or an entire drive, to ensure the needed child files can be located for processing.

15. Click <Next> to continue and after some processing, the “Cure – Correct broken links automatically” wizard screen displays.



16. Because the sample files were previously inoculated in the earlier “Lesson #2 — Inoculate files”, *LinkFixerPlus* can now *automatically* repair the broken links caused by our manual rename of the “Reference Files” folder. To do this, select the “Automatic” option for the “Correction Method:” and then click <Run>.
17. When the processing is complete, the “LinkFixerPlus Process Summary” displays. You have just cured broken links in the selected parent files, *automatically*!
18. Click the <View Report...> button to see a detailed report of the cure process you just completed. Go through the report and notice how it lists each parent file and its links, and how it shows which links were automatically repaired (cured).

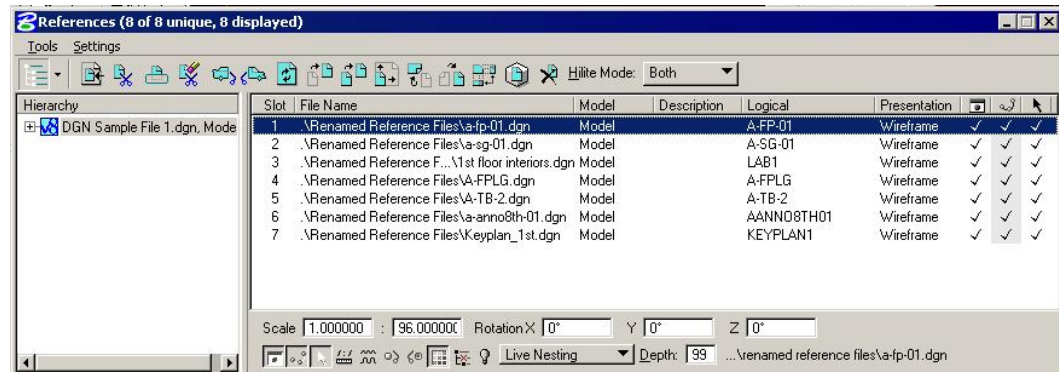
Links Cured in Parent Files:

| |
|---|
| Parent file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\DGN Sample File 1.dgn |
| contains a link pointing to "Reference Files\la-fp-01.dgn" (Child file not found). and was relinked with _Renamed Reference Files\la-fp-01.dgn |
| contains a link pointing to "Reference Files\la-sg-01.dgn" (Child file not found). and was relinked with _Renamed Reference Files\la-sg-01.dgn |
| contains a link pointing to "Reference Files\1st floor interiors.dgn" (Child file not found). and was relinked with _Renamed Reference Files\1st floor interiors.dgn |
| contains a link pointing to "Reference Files\A-FPLG.dgn" (Child file not found). and was relinked with _Renamed Reference Files\A-FPLG.dgn |
| contains a link pointing to "Reference Files\A-TB-2.dgn" (Child file not found). and was relinked with _Renamed Reference Files\A-TB-2.dgn |
| contains a link pointing to "Reference Files\la-anno8th-01.dgn" (Child file not found). and was relinked with _Renamed Reference Files\la-anno8th-01.dgn |
| contains a link pointing to "Reference Files\Keyplan_1st.dgn" (Child file not found). and was relinked with _Renamed Reference Files\Keyplan_1st.dgn |

19. After viewing your report, close the Web browser.

20. To verify that the links are Cured, open the “DGN Sample File 1.dgn” file. Then select the “File | Reference” menu option. Notice the reference files now appear in black indicating they were found. The broken references in the file, caused by our manual rename of folder, were *automatically* repaired by the cure process! (See the following screen shot.)

Note: While we only broke and repaired a few references in the sample files for demonstration purposes, hundreds or even thousands of broken references in MicroStation files can be automatically repaired, in batch, using the exact same cure process.



21. Now close MicroStation without saving any changes.
22. Click on the <Run another LinkFixerPlus process> button to return to the “What do you want LinkFixerPlus to do?” screen.

Trialware Note: In the trial version, only 50% of the links are inoculated. As a result, only 50% of the links in the files will be cured. Thus, it may be necessary to look at links other than the one shown above to see links that were cured.

23. Good work! You have completed the third *LinkFixerPlus* QuickStart lesson. Now, go to “Lesson #4 — Rename files”.

Lesson #4 — Rename files

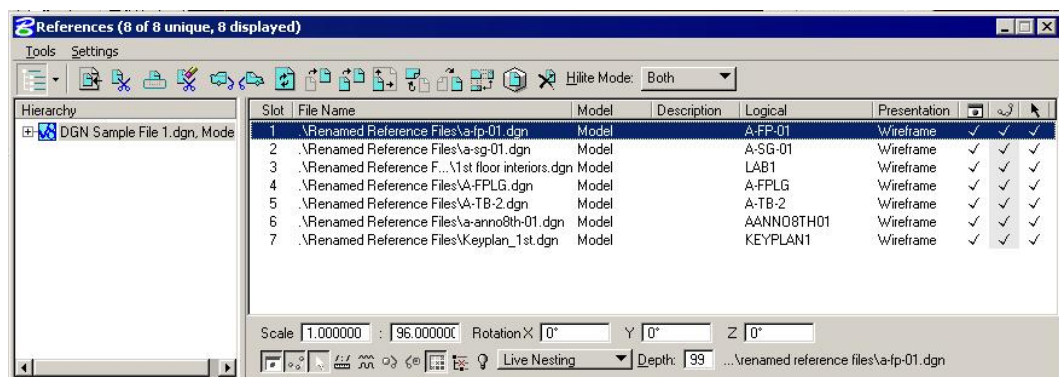


1. In this lesson, you will use *LinkFixerPlus* to Move/rename some reference files and then move them to a different folder *without* breaking any of the references (links) that point to these files.

Trialware Note: In the trial version of *LinkFixerPlus*, the rename <Run> button has been disabled. However, you may still go through each of the rename wizard screens, define custom rename rules and then preview the rename results on the “Rename Preview” tab.

Tip: The “Move/rename” command can be used to move or rename parent or child files whether or not they have been previously inoculated. As long as the references are healthy (not broken), you can use the “Move/rename” command to move or rename files and the references will be maintained automatically. As compared to using the “Cure” command to fix broken references after files have been previously inoculated and moved.

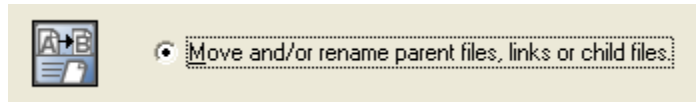
2. Let’s first take a quick look at a parent file that has some references to a few Reference files. Open Windows Explorer (or Windows NT Explorer).
3. Navigate to the “MicroStation Sample Files” folder. This folder is located in your *LinkFixerPlus* installation folder, which is normally “C:\Program Files\LinkTek\LinkFixerPlus”.
4. Open the “DGN Sample File 1.dgn” file. Select the “File | Reference” menu option. . Notice the reference files now appear in black indicating they were found. (i.e. not broken).



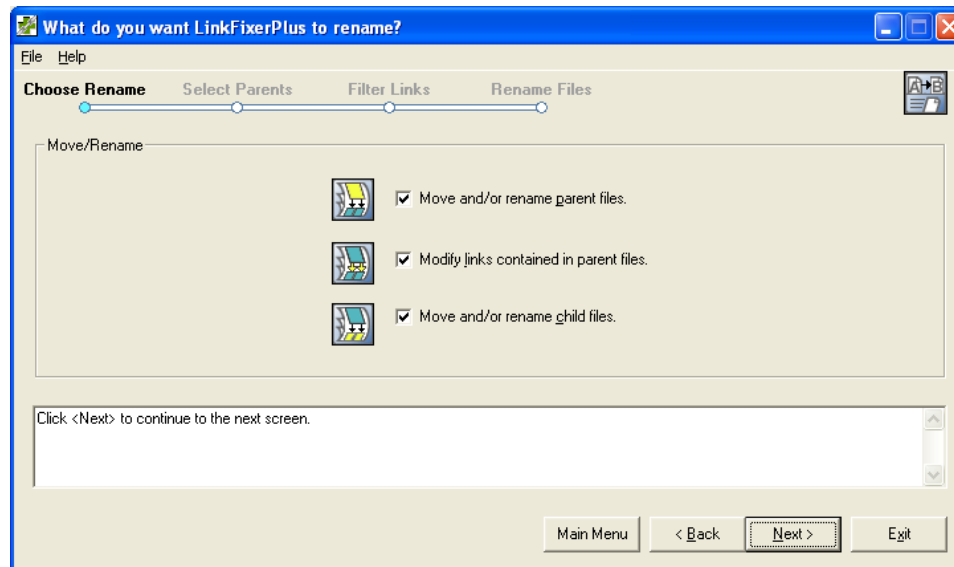
Note: If you did not complete the previous lesson, the folder named “Renamed Reference Files” will not exist, so you would use the original folder named “Reference Files” for this lesson in place of the folder named “Renamed Reference Files”.

Note: Using the *LinkFixerPlus* “Move/rename” command, you can move or rename parent files or child files, in batch, *without* breaking references! As opposed to renaming or moving files using Windows Explorer or some other manual method which can cause broken links.

5. Now close MicroStation without saving any changes and minimize Windows Explorer.
6. On the “What do you want LinkFixerPlus to do?” screen, select the “Move and/or rename parent files, links or child files” option.



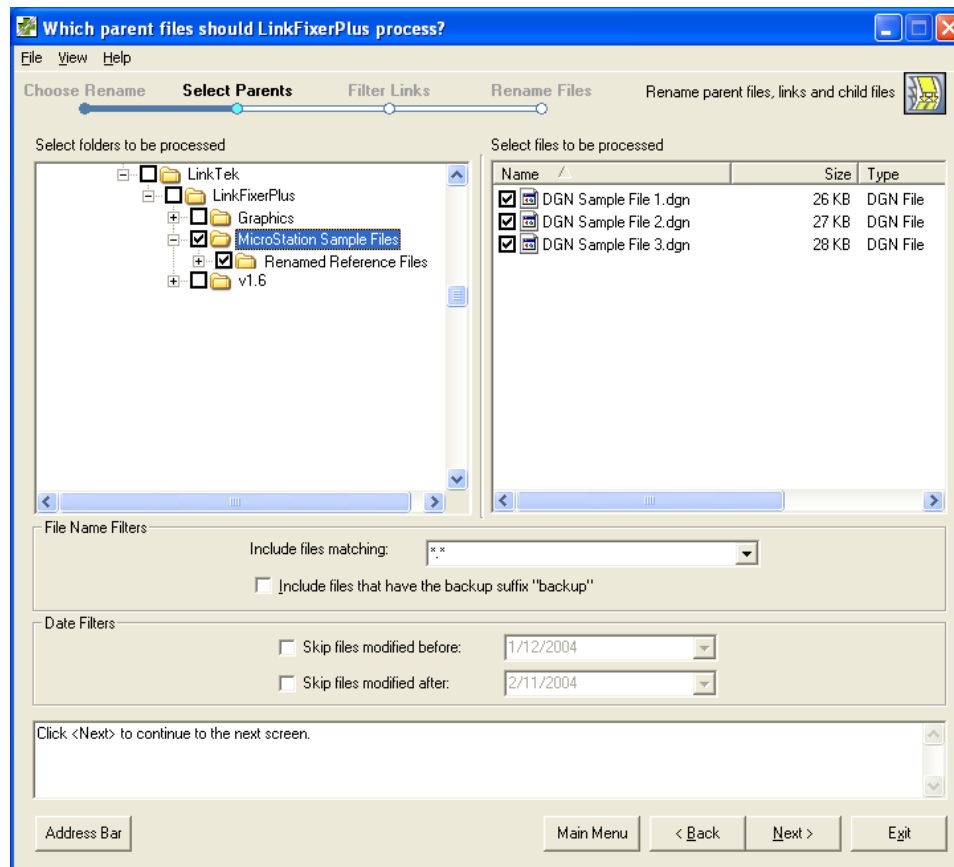
7. Click <Next>.
8. On the following wizard screen, leave all three rename checkboxes turned on (“checked”) and click the <Next> button.



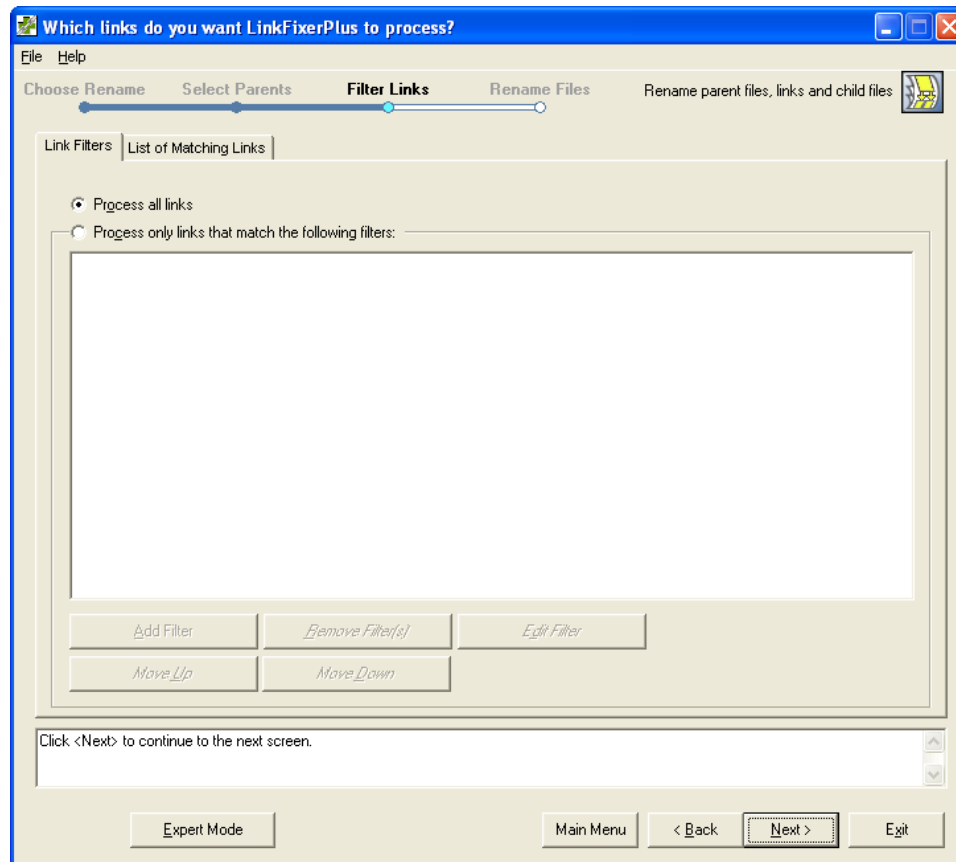
Tip: The move/rename process can be used to modify “references” *without* moving or renaming parent files or child files. This can be done by checking only the “Modify links contained in parent files” checkbox. Then, rename rules can be defined to simply change the contents of any portion of the references as needed. Such as changing a folder name from “\OldFolder” to “\NewFolder”, or even a drive specification from “C:” to “F:”. In this manner, it is possible to fix broken references in files that have already been moved!

- The “Which parent files should *LinkFixerPlus* process?” screen will now display. Ensure that the “MicroStation Sample Files” folder is still selected. Then, select the filter “*. *” from this drop-down menu. This allows *LinkFixerPlus* to include all of the files in the above selected folders.

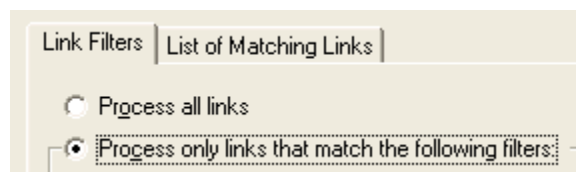
Note: *LinkFixerPlus* processes licensed files based upon their actual file type and not based upon the extension of their filenames. So, if the extension of a MicroStation file, “.dgn”, was changed, you could still process the file. You would select the wildcard File Name Filter “*. *” from the drop-down menu, or type it into the “Include files matching:” field. This would ensure that all MicroStation files, in the folders you had selected, are processed regardless of their actual filename extensions.



10. Click the <Next> button. After some processing, the “Which links do you want LinkFixerPlus to process?” screen will display.

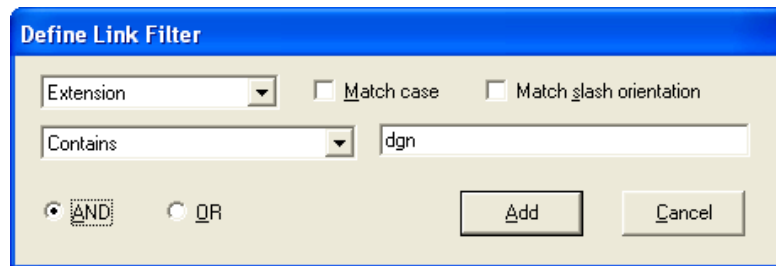


11. We will now build a link filter that tells *LinkFixerPlus* to process *only* references that point to child files with a “.dgn” file extension. To do this, select the “Process only links that match the following filters:” option.

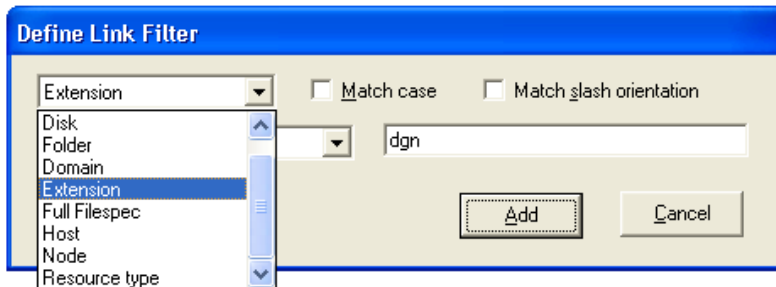


12. Click on the <Add Filter> button.

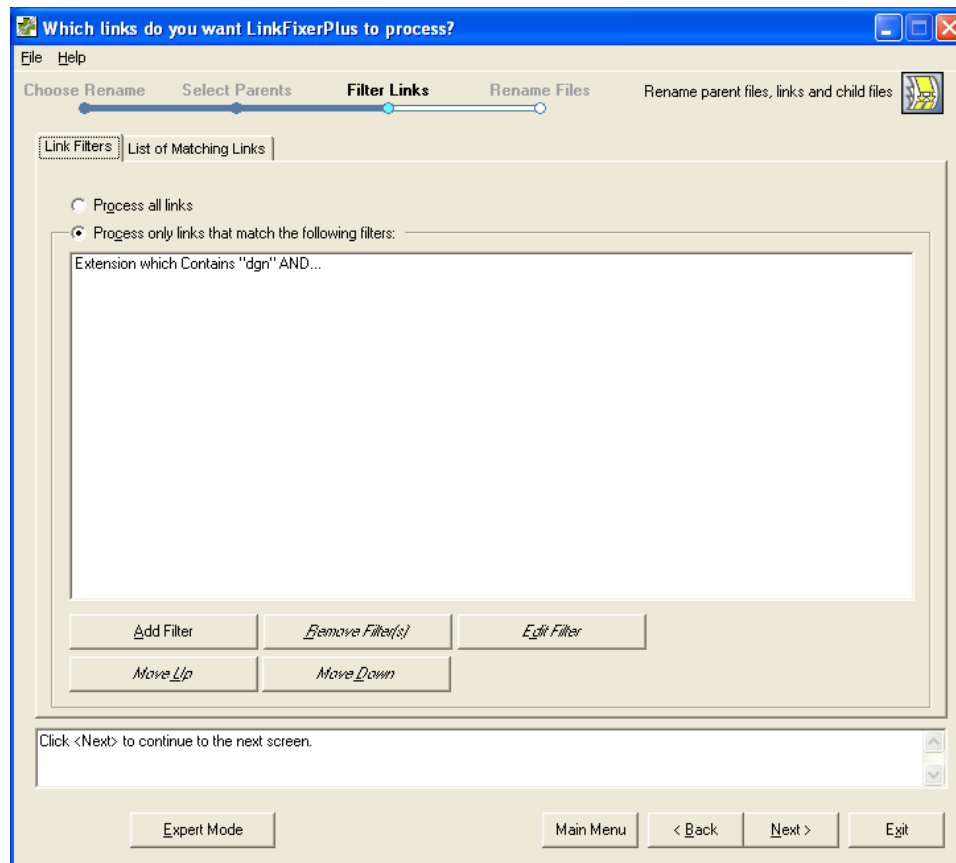
- The reference files we want to process have a “.dgn” extension, so we will set up a filter to select only those links that point to child files that have an “Extension” which “Contains” “dgn”. (See the following screen shot.)



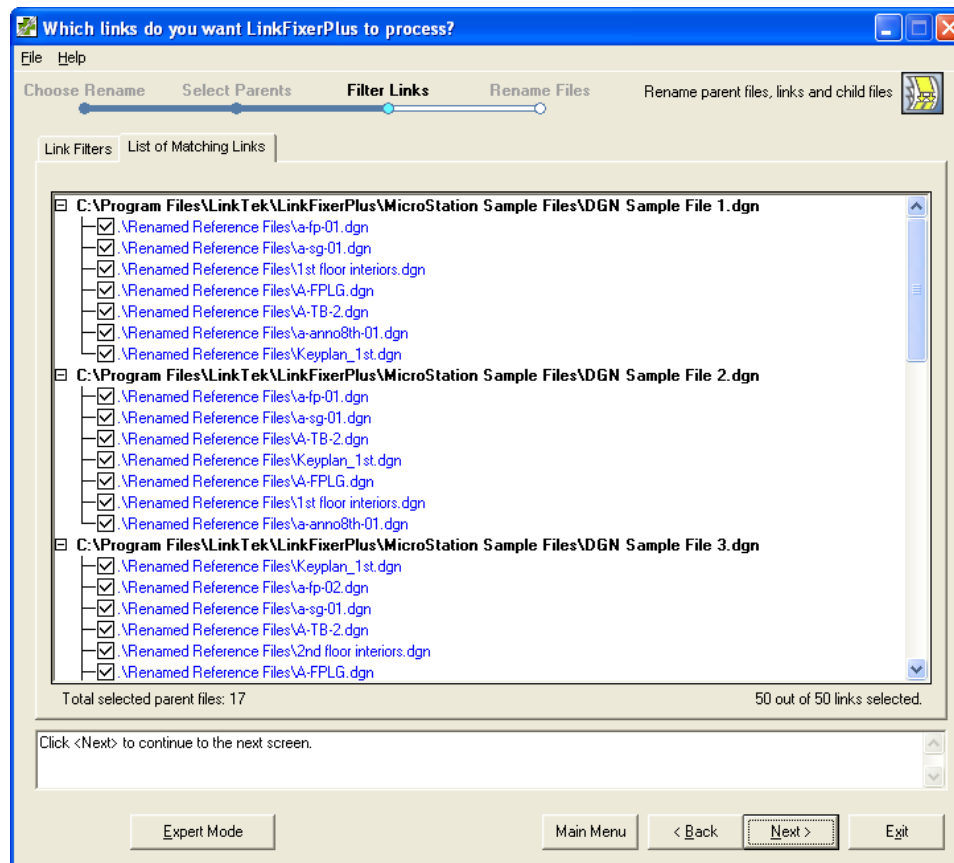
- To do this, choose “Extension” and “Contains” from the drop-down menus, and type in “dgn”. (As shown in the screen shot.) Then click the <Add> button to add this link filter to the list.



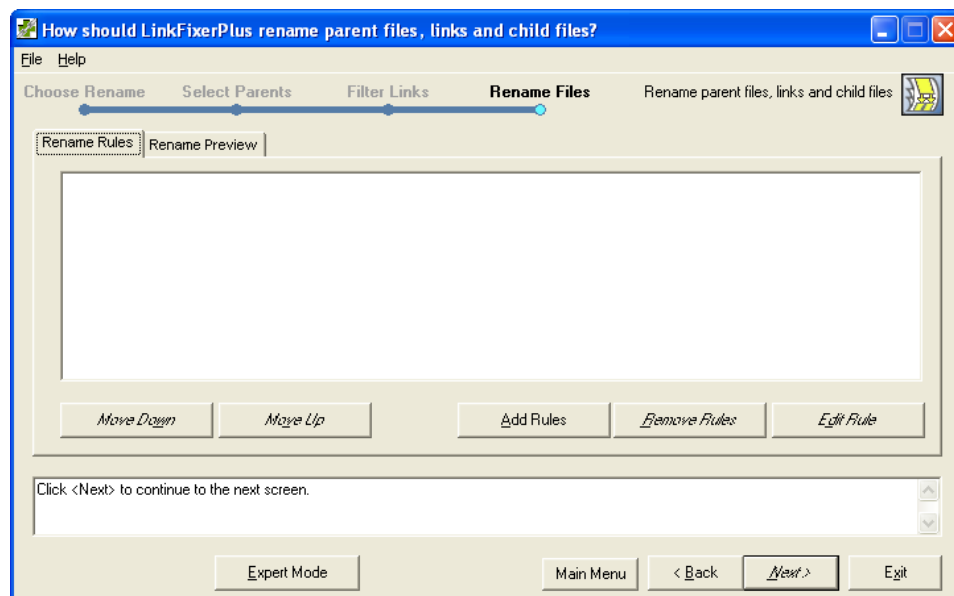
15. After you click the <Add> button, the <Cancel> button will change to read <Close>. Click the <Close> button now. The “Define Link Filter” dialog box will close, allowing you to see the link filter you just added.



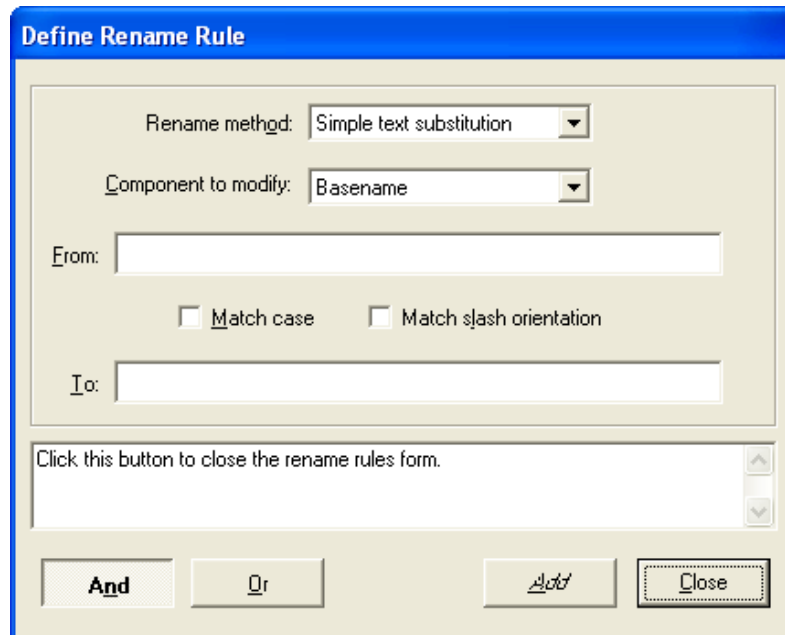
- Click the <Next> button. The links contained in the parent files will now be read, with the link filter being applied to them. The “List of Matching Links” tab will then display, with only the links matching our link filter highlighted in blue text.



- Click the <Next> button to display the “How should LinkFixerPlus rename parent files, links and child files?” screen. Here you will define a “Rename Rule” telling *LinkFixerPlus* exactly how to move the reference files.



18. Click the <Add Rules> button, to create a new rename rule. The “Define Rename Rule” dialog box will display as shown below.



Define Rename Rule

Rename method: Simple text substitution

Component to modify: Basename

From:

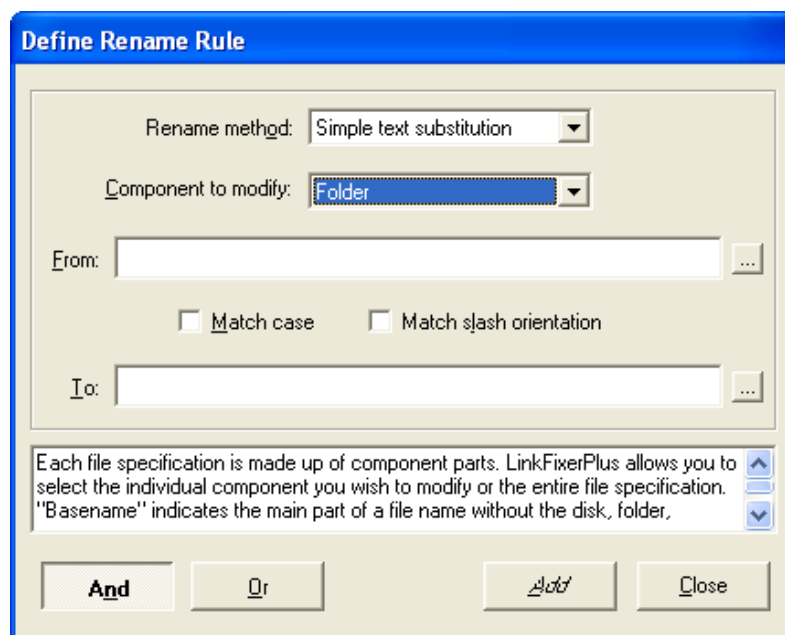
Match case Match slash orientation

To:

Click this button to close the rename rules form.

And Or Add Close

19. Set the “Rename method:” field to “Simple text substitution” and the “Component to modify:” field to “Folder”.



Define Rename Rule

Rename method: Simple text substitution

Component to modify: Folder

From:

Match case Match slash orientation

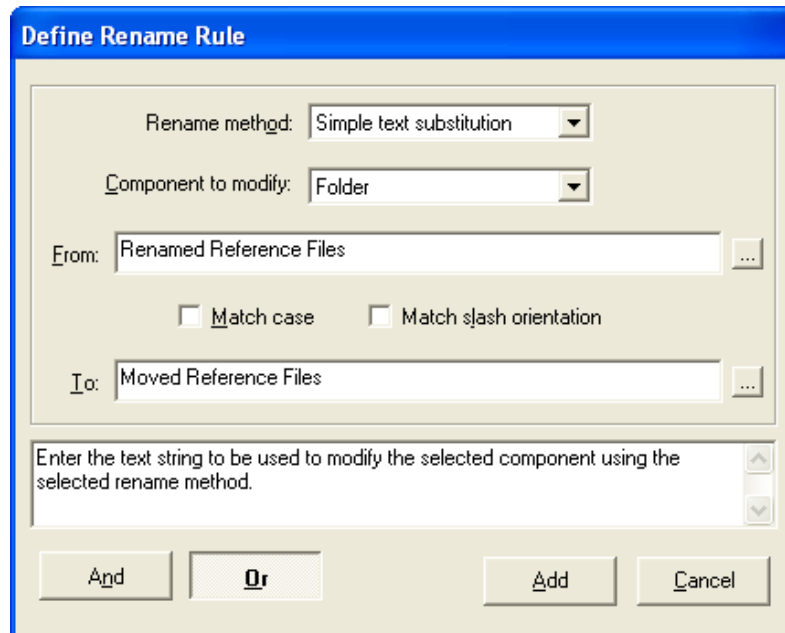
To:

Each file specification is made up of component parts. LinkFixerPlus allows you to select the individual component you wish to modify or the entire file specification. "Basename" indicates the main part of a file name without the disk, folder.

And Or Add Close

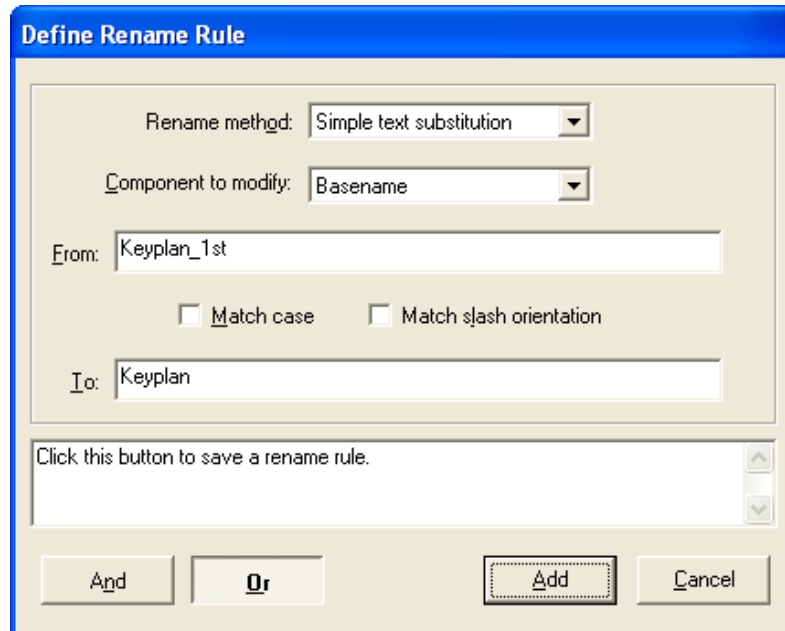
Note: The <And> button, and the <Or> button, selects your Boolean operator to combine rules together. By default the <And> button will be selected.

20. In the “From:” field, type in the string “Renamed Reference Files”. And in the “To:” field, type in the string “Moved Reference Files”. “Moved Reference Files” is the name of the new subfolder that the reference files will be moved to without breaking references in the parent drawing files. Click the <OR> button, which will be needed to add a second rule. For the purposes of this lesson, type in “Renamed Reference Files” and “Moved Reference Files” exactly as shown. The “Define Rename Rule” dialog box should then look like the following screen shot:



21. Now click the <Add> button. The rename rule will be saved and the “Define Rename Rule” dialog box will remain open.

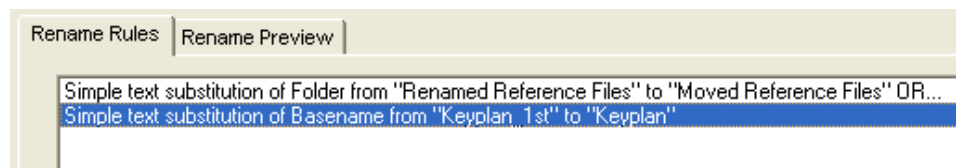
22. Next, we will add another rename rule that will rename “Keyplan_1st.dgn” to “Keyplan.dgn”. So, in the “Define Rename Rule” dialog box, change the “Component to modify:” selection to “Basename”. Then, in the “From:” field, type in “Keyplan_1st”, and in the “To:” field type in “Keyplan”. For the purposes of this lesson, type in “Keyplan_1st” and “Keyplan” exactly as shown. The “Define Rename Rule” dialog box will look like this:



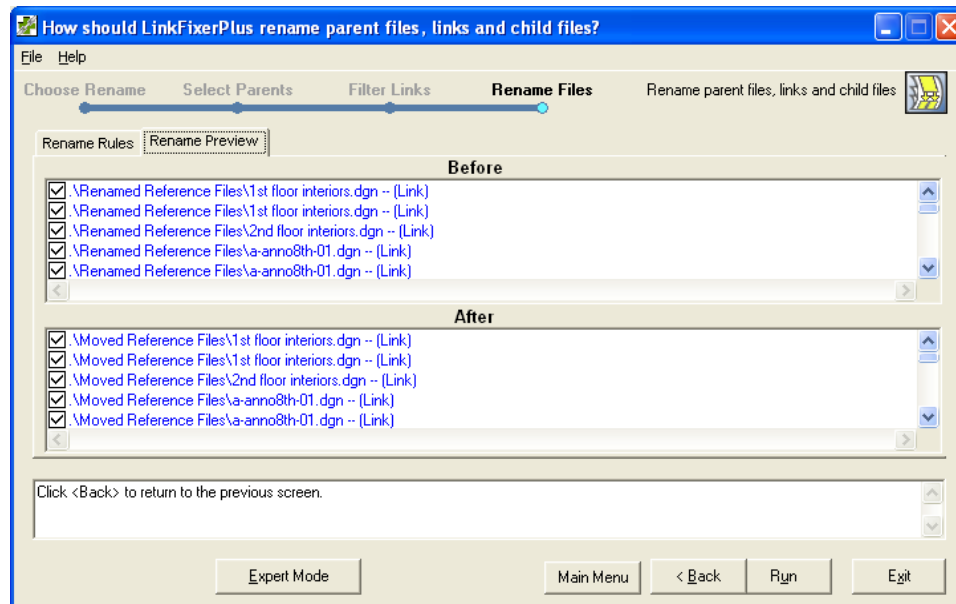
23. Click the <Add> button to add this rule to the list. We have added all of the rename rules we want for this lesson, so click the <Close> button now.

Note: These rename rules will be applied to the selected drawing files and also to *all* of the references that point to them. Using *LinkFixerPlus* to perform the move and rename of these files will ensure that the links pointing to these files are *not* broken when they are moved and renamed!

24. In the “Rename Rules” window, you will now see the two rename rules that you just added.



25. Click the <Next> button and after some processing, the “Rename Preview” tab displays. In the “Before:” window, you will see a list of the selected files and links as they currently exist. In the “After:” window, you will see the changes that will be made to the files and links when the defined rename rules are applied to them. (You may need to scroll down to view the before and after changes highlighted in blue.)
26. The items that will be modified are highlighted in blue text. Notice in the “After:” window, “Renamed Reference Files” has been replaced with “Moved Reference Files” and “Keyplan_1st” has been changed to “Keyplan”. These changes will be made when the rename process is actually run. This preview screen allows you to verify that your rename rules will make the desired changes *before* you actually run the rename process.



Trialware Reminder: The rename <Run> button is disabled in the Trialware version of *LinkFixerPlus*. So if you are using the Trialware version, you can skip the remaining steps in this lesson. To do this, click the <Back> button on this screen and each previous screen that displays until you are back to the “What do you want LinkFixerPlus to do?” main menu.

27. We will now apply the defined rename rules. To do this click the <Run> button.
28. Several dialog boxes will display, prompting you regarding the creation of a new folder and the moving of a file to the new folder.
29. On the first dialog box, click the <Move this and all other files that need to be moved to a different folder> button. On the second dialog box, click the <Create all folders that may be needed> button.
30. These dialog boxes are displayed by default to inform you of such changes to your files. As you become more familiar with *LinkFixerPlus*, you can modify the default settings to disable these dialog boxes from displaying in the future.

31. Next, click the <View Report...> button to view the “Rename Process Report” detailing the changes made as a result of the defined rename rules. A portion of this report is shown as follows:

Move and/or rename child files.

| |
|---|
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Renamed Reference Files\A-fp-01.dgn |
| was moved/renamed to C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Moved Reference Files\A-fp-01.dgn |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Renamed Reference Files\A-sg-01.dgn |
| was moved/renamed to C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Moved Reference Files\A-sg-01.dgn |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Renamed Reference Files\1st floor interiors.dgn |
| was moved/renamed to C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Moved Reference Files\1st floor interiors.dgn |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Renamed Reference Files\A-FPLG.dgn |
| was moved/renamed to C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Moved Reference Files\A-FPLG.dgn |
| Child file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Renamed Reference Files\A-TB-2.dgn |
| was moved/renamed to C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\Moved Reference Files\A-TB-2.dgn |

Modify links contained in parent files.

| |
|---|
| Parent file: C:\Program Files\LinkTek\LinkFixerPlus\MicroStation Sample Files\DGN Sample File 1.dgn |
| The link ".\Renamed Reference Files\A-fp-01.dgn" was changed to ".\Moved Reference Files\A-fp-01.dgn" |
| The link ".\Renamed Reference Files\A-sg-01.dgn" was changed to ".\Moved Reference Files\A-sg-01.dgn" |
| The link ".\Renamed Reference Files\1st floor interiors.dgn" was changed to ".\Moved Reference Files\1st floor interiors.dgn" |
| The link ".\Renamed Reference Files\A-FPLG.dgn" was changed to ".\Moved Reference Files\A-FPLG.dgn" |
| The link ".\Renamed Reference Files\A-TB-2.dgn" was changed to ".\Moved Reference Files\A-TB-2.dgn" |
| The link ".\Renamed Reference Files\A-anno8th-01.dgn" was changed to ".\Moved Reference Files\A-anno8th-01.dgn" |
| The link ".\Renamed Reference Files\Keyplan_1st.dgn" was changed to ".\Moved Reference Files\Keyplan.dgn" |

32. Scroll through the report and notice how it shows the reference files being moved and renamed. In addition, notice how it shows each of the links contained in the various parent drawing files that point to the reference files and how they have been updated to point to the new location and filenames of the reference files.
33. Close your browser when you are done viewing the “Rename Process Report”.
34. On the “LinkFixerPlus Process Summary” dialog box, click the <Run another LinkFixerPlus process> button to return to the “What do you want LinkFixerPlus to do?” wizard screen or click on <Exit> to finish processing with *LinkFixerPlus*.
35. Congratulations! You have now completed the *LinkFixerPlus* QuickStart lessons!

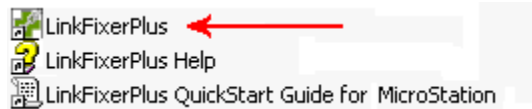
Note: Feel free to go through these lessons as many times as you may need to become comfortable using *LinkFixerPlus*.

Appendix A — Preparing the QuickStart Sample Files

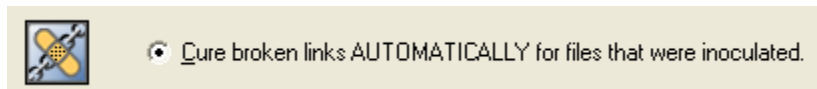
MicroStation stores links (other than hyperlinks) within drawing files using full addresses, such as “C:\MyFiles\DGN Sample File 1.dgn”. If you did not install *LinkFixerPlus* to the default drive and folder “C:\Program Files\LinkTek\LinkFixerPlus\”, you will need to go through the following steps to ensure the links contained in the “MicroStation Sample Files” are updated.

In these steps we will use *LinkFixerPlus* to update the links in all of the sample files to prepare the sample files for use with the QuickStart lessons.

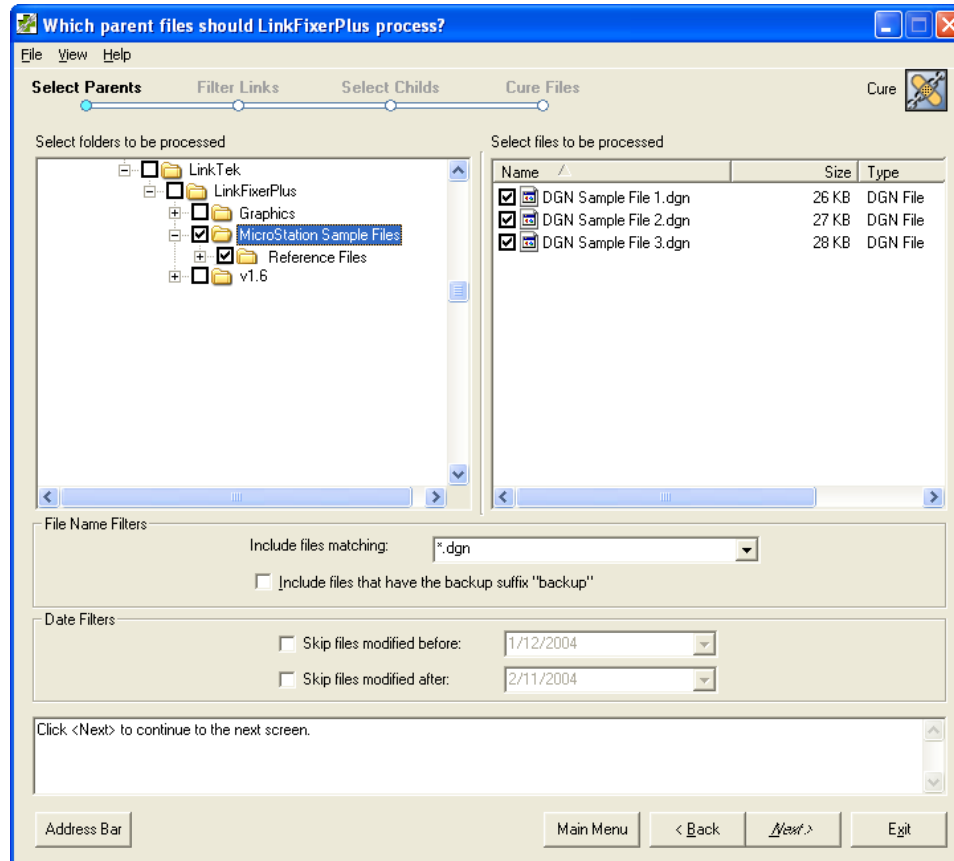
1. Start *LinkFixerPlus* by locating the “LinkFixerPlus” folder on your desktop and open it. Then, locate the *LinkFixerPlus* shortcut, as indicated in the screen shot below and double-click on it to start *LinkFixerPlus*



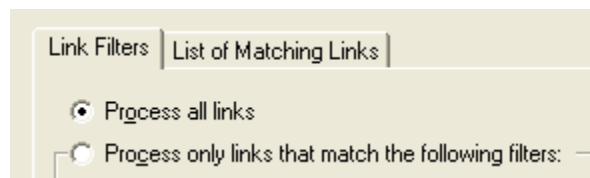
2. On the “What do you want LinkFixerPlus to do” wizard screen, choose “Cure broken links AUTOMATICALLY for files that were inoculated.”, which is also known as the “cure command”.



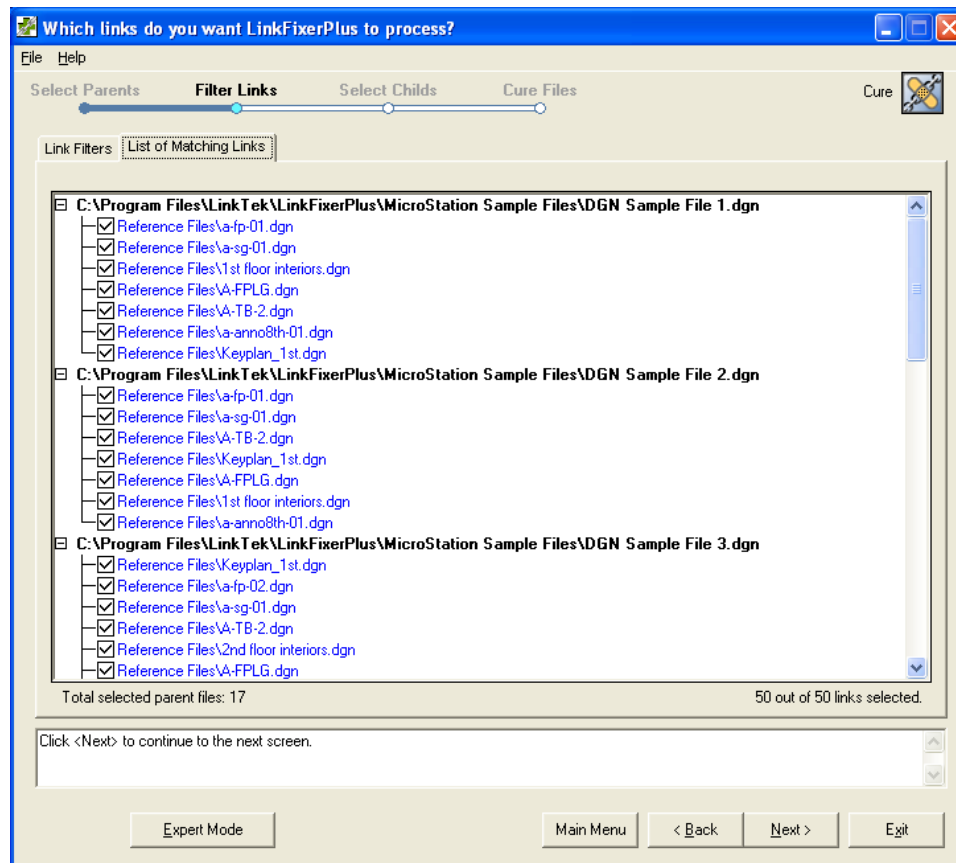
3. On the “Which parent files should LinkFixerPlus process?” wizard screen, navigate to your *LinkFixerPlus* installation folder, then click the checkbox next to the folder named “MicroStation Sample Files”.
4. Then, in the “File Name Filters” area, make sure that the “Include files matching:” field is set to “*.dgn”, you may manually edit this filter as needed.
5. Then, click the <Next> button.



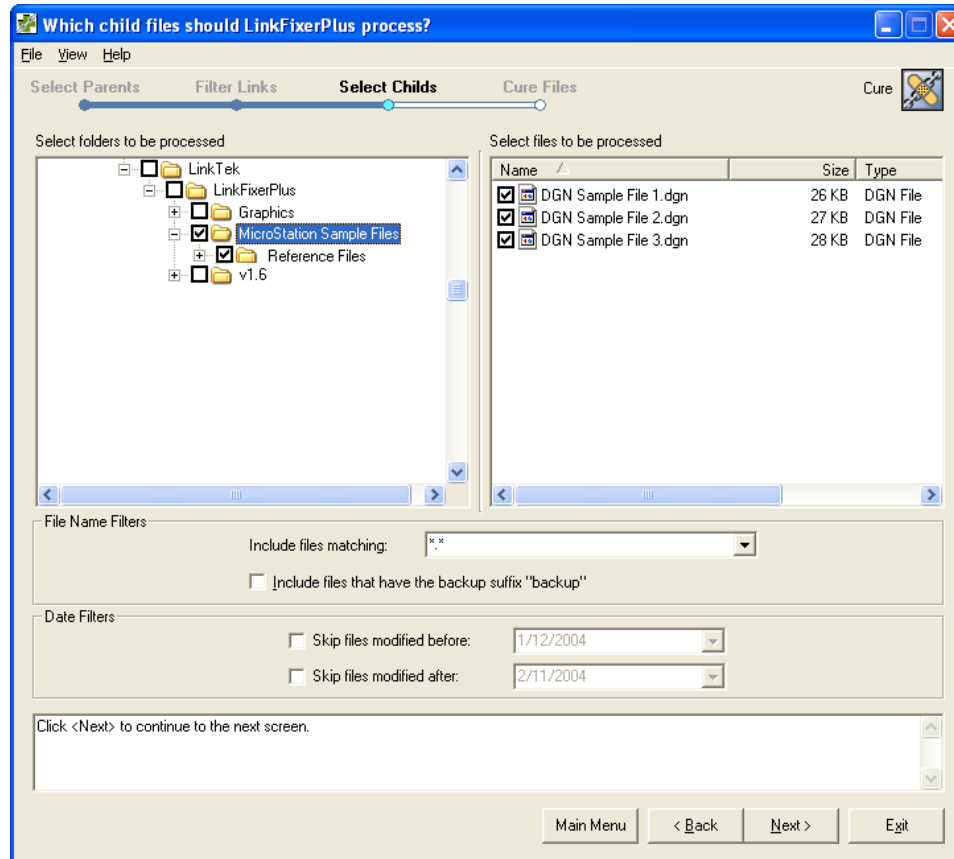
6. On the “Which links should LinkFixerPlus process?” screen, ensure that the “Process all links” option is selected on the “Link Filters” tab. Then click the <Next> button.



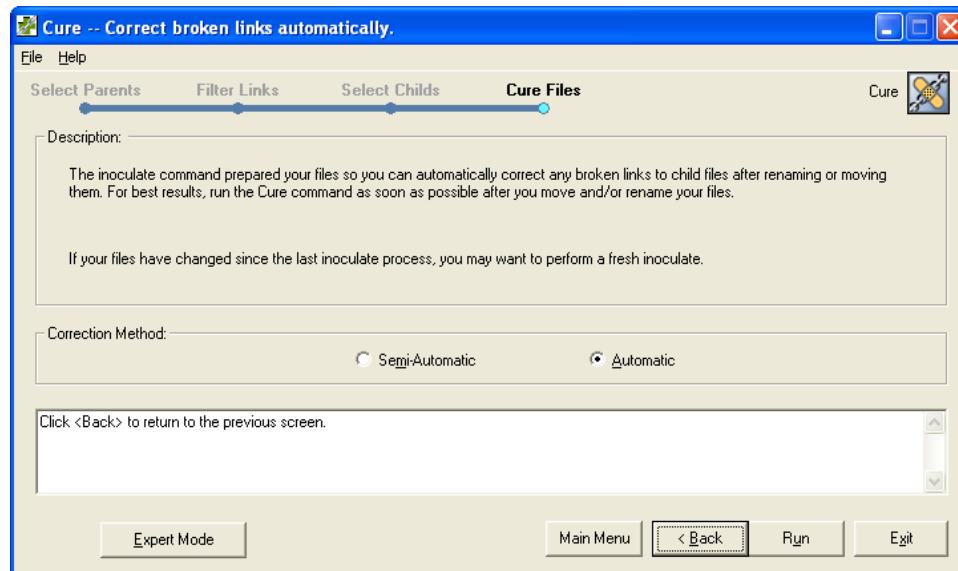
7. Some processing will occur using the selected parent files and, when complete, the “List of Matching Links” tab will display with a list of the parent files along with the links that they contain. Click the <Next> button again.



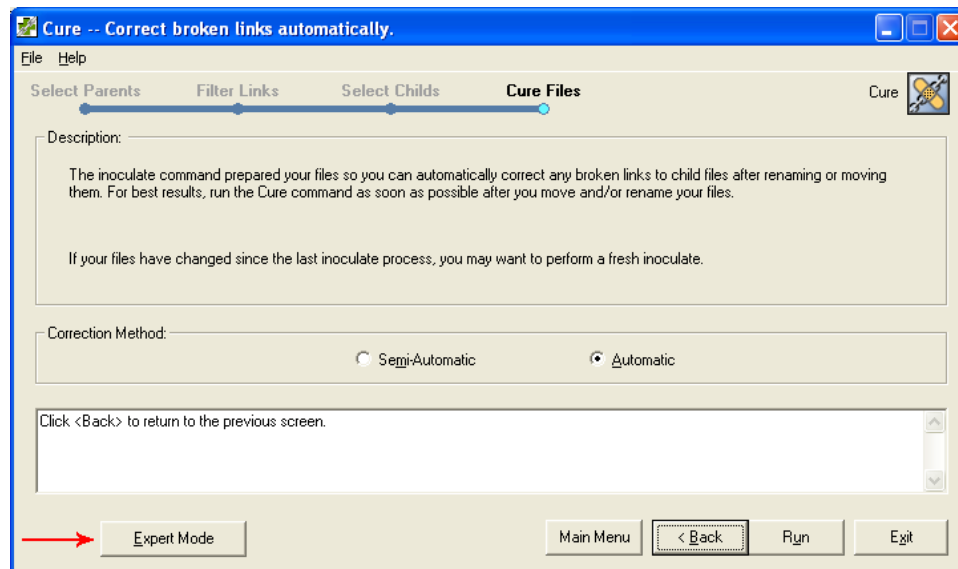
8. On the subsequent “Which child files should LinkFixerPlus process?” wizard screen, navigate to the “MicroStation Sample Files” folder, and click the checkbox next to that folder.
9. Then, in the “File Name Filters” area of the screen, set the “Include files matching:” field to “*.*”, which you can select from the drop-down menu.
10. Finally, click the <Next> button.



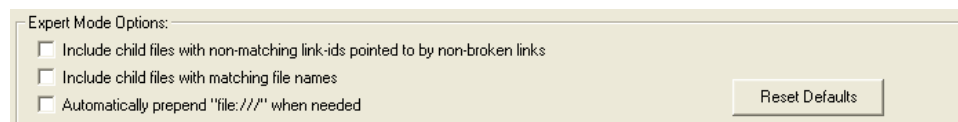
11. After some processing of the child files, the “Cure — Correct broken links automatically” wizard screen displays.



12. Click the <Expert Mode> button to view the “Expert Mode” options.

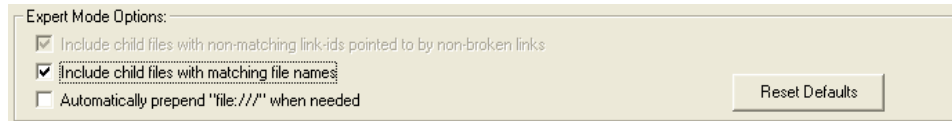


13. After clicking the <Expert Mode> button, three “Expert Mode” options will display, as shown below:

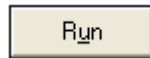


14. We want *LinkFixerPlus* to modify the links using files that have the same file name as the file names stored in the links. To do this, click the checkbox next to the second “Expert Mode” option “Include child files with matching file names”. This causes that option to be turned on (“checked”). The first option “Include child files with

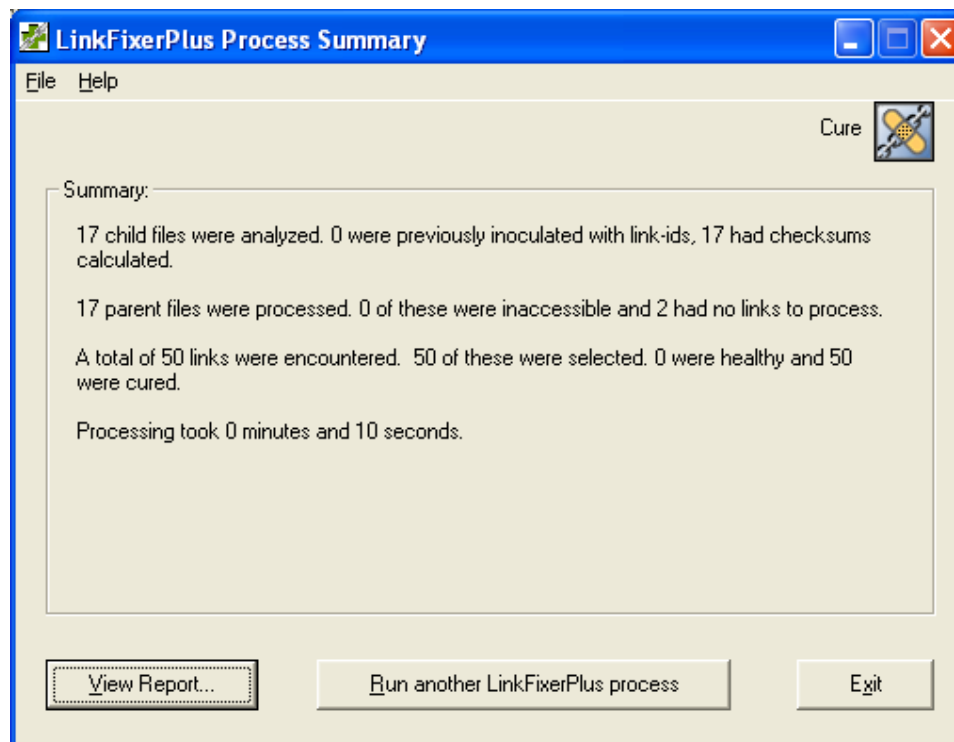
non-matching link-ids pointed to by non-broken links” will automatically be turned on (“checked”) and grayed out. See the following screen shot:



15. Finally, click the <Run> button. This will begin the process of updating all of the links in the sample files to use the alternate installation location, so that the sample files are ready to use with the QuickStart lessons.



16. When the processing is complete, the “LinkFixerPlus Process Summary” screen displays. The “LinkFixerPlus Process Summary” should indicate that “... 50 links were cured” as shown in the following screen shot:



17. You can now close *LinkFixerPlus* by clicking the <Exit> button. Click the <Yes> button on the subsequent “Exit LinkFixerPlus” message box that displays. And finally, click the <OK> button on the “Save Settings As...” dialog box.
18. The links contained in the “MicroStation Sample Files” have now been updated to use the alternate installation path you selected for *LinkFixerPlus*!
19. You should now create a “MicroStation Sample Files Backup” folder under your *LinkFixerPlus* installation folder and copy the “MicroStation Sample Files” to that backup folder. This will allow you to easily “refresh” the sample files in your “MicroStation Sample Files” folder without having to repeat the above steps.
20. Any time you want to refresh the “MicroStation Sample Files”, you can then go to your “MicroStation Sample Files” folder, select all the files and subfolders there and delete them. Then, go to your “MicroStation Sample Files Backup” folder, select all the files and subfolders there and copy them into the “MicroStation Sample Files” folder. This ensures the sample files will be properly set up for you (or someone else) to easily go through the QuickStart lessons whenever desired.
21. You are now ready to begin learning how to use *LinkFixerPlus* by going through the QuickStart lessons. Return to Chapter 3 —“Starting *LinkFixerPlus*” in this QuickStart Guide.